

**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Jereza, Catherine; Rosenbaum, Matthew; Mills, Brian  
**Cc:** Drake, Christopher; Mumme, Bettina  
**Subject:** Questions for PJM and Dominion  
**Date:** Monday, October 16, 2017 1:51:20 PM  
**Attachments:** Questions for PJM and Dominion 2017-10-16.docx  
**Importance:** High

---

Following the Friday meeting, we tried to capture the technical questions that were raised in a short list for PJM and Dominion. That list is attached. Rakesh, because you sent the last round of questions to PJM and Dominion, it would be consistent if this next list also came from you. (b) (5)

please review the document to make sure (1) all questions are correctly phrased from an engineering perspective, and (2) the list is complete and reflects what was discussed on Friday. All edits are welcome.

Considering the tight timeline DOE has, the document requests an initial response by COB Wednesday the 18th, with an opportunity to submit more complete information by Monday the 23rd. (b) (5) We defer to OE on how difficult it will be for PJM and Dominion to put together responses.

Because we are (b) (5) asking for PJM and Dominion's answers by COB Wednesday, please send this document out as quickly as you can--this afternoon if possible.

Thank you,  
Kathy

Katherine (Kathy) Konieczny  
Acting Assistant General Counsel for Electricity and Fossil Energy  
Forrestal 6D-033  
(202) 586-0503  
Katherine.Konieczny@hq.doe.gov



PJM and Dominion:

DOE seeks more information to better understand alternatives to Yorktown Unit 1 & 2 operation. Please provide an initial response to the following questions in writing no later than Wednesday, October 18. Additional information, if any, should be submitted by Monday, October 23.

Demand Response

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through its demand response program?
- What is the estimated minimum cost (or cost range) of reaching the maximum demand response? Who would pay that cost?

Distributed Generation Resources

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through distributed generation resources (*e.g.*, rooftop solar)?
- What is the estimated minimum cost (or cost range) of reaching the maximum distributed generation? Who would pay that cost?

Battery Storage Resources

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through its existing battery storage resources?
- How long does it take to procure battery storage, and what is the minimum price per MW?

Other Alternatives

- How much alternative power would Dominion need to mobilize to preserve reliability during a transmission outage and without running either Yorktown coal unit?
- How much would that mobilization cost? Who would pay that cost?



**From:** Drake, Christopher  
**To:** Konieczny, Katherine  
**Cc:** Batra, Rakesh  
**Subject:** RE: Questions for PJM and Dominion  
**Date:** Monday, October 16, 2017 3:52:24 PM  
**Attachments:** Questions for PJM and Dominion 2017-10-16v2.docx

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Kathy,

(b) (5)

I revised the question document accordingly, as attached. Rakesh, if you have further thoughts on it, please let us know.

Thanks,  
Chris

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Monday, October 16, 2017 3:00 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>  
**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mummie, Bettina <Bettina.Mummie@hq.doe.gov>  
**Subject:** RE: Questions for PJM and Dominion

Kathy:

(b) (5)

PJM submitted an answer to the comments filed by Sierra Club on September 6, 2017, in the above referenced proceeding ("Comments") in response to PJM's Order No. 201-17-2 ("Order") renewal application ("Renewal Application"). The next 2 paragraphs are direct quotes from the filing.

Currently, approximately 14 MW of PJM Demand Response is available in the in the North Hampton Roads area on the Virginia Peninsula. Since usage is limited, PJM will only implement DR as needed post-contingency to restore customer load.

Currently, Dominion Energy Virginia has about 20 MW of Demand Side Management capabilities in the peninsula in the form of remote air-conditioning control as well as the ability to curtail a large industrial customer up to 75 MWs for transmission emergencies. This air conditioning control is limited to a total of 120 hours and for 30 days during the summer months. Dominion Energy Virginia will reserve this capability for the highest need days to reduce load in the North Hampton Roads area on the Virginia Peninsula.

Moreover, Appendix II of the Application details the availability of other generation in the North Hampton Roads areas of the Virginia Peninsula and again specifies the availability of demand response and other information noted above and concludes: "Thus while PJM and Dominion Energy Virginia have a very limited amount of demand response available of the peninsula, it is not sufficient to ensure reliable service.

Please let me know if you feel otherwise.

Thanks,  
Rakesh

-----Original Message-----

**From:** Konieczny, Katherine  
**Sent:** Monday, October 16, 2017 1:51 PM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>;



Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>  
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>  
Subject: Questions for PJM and Dominion  
Importance: High

Following the Friday meeting, we tried to capture the technical questions that were raised in a short list for PJM and Dominion. That list is attached. Rakesh, because you sent the last round of questions to PJM and Dominion, it would be consistent if this next list also came from you. (b) (5)

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- According to PJM's RTEP Input Assumptions and Scope Whitepaper, Dominion could have a maximum of 130 MW of distributed solar generation available during the summer. Is that number still accurate? If not, what is the correct number?
- Neither PJM nor Dominion stated that alternative resources besides demand response and distributed generation, including battery storage, would be available to offset power loss during a scheduled transmission outage. Is that still accurate? If not, what alternative resources are available, and how much power could they provide?
- According to the Summary of Findings issued alongside DOE Order No. 202-17-4, the Yorktown coal units offset 950 MW of load that could be shed in a transmission outage. Is that number still accurate? If not, what is the correct number?



**From:** Konieczny, Katherine  
**To:** Drake, Christopher  
**Cc:** Batra, Rakesh  
**Subject:** RE: Questions for PJM and Dominion  
**Date:** Monday, October 16, 2017 3:55:12 PM

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I'm fine with that approach. My only comment is that there appears to be a missing quotation mark in the first bullet.

-----Original Message-----

**From:** Drake, Christopher  
**Sent:** Monday, October 16, 2017 3:52 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Cc:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Subject:** RE: Questions for PJM and Dominion

Kathy,

(b) (5)

I revised the question document accordingly, as attached. Rakesh, if you have further thoughts on it, please let us know.

Thanks,  
Chris

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**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>  
**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>  
**Subject:** RE: Questions for PJM and Dominion

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Please let me know if you feel otherwise.

Thanks,  
Rakesh

-----Original Message-----

From: Konieczny, Katherine

Sent: Monday, October 16, 2017 1:51 PM

To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>;

Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>

Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>

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Acting Assistant General Counsel for Electricity and Fossil Energy  
Forrestal 6D-033  
(202) 586-0503  
Katherine.Konieczny@hq.doe.gov



**From:** Drake, Christopher  
**To:** Batra, Rakesh  
**Cc:** Konieczny, Katherine  
**Subject:** RE: Questions for PJM and Dominion  
**Date:** Monday, October 16, 2017 4:07:22 PM  
**Attachments:** Questions for PJM and Dominion 2017-10-16v3.docx

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Rakesh,

Per our conversations, we would appreciate it if you could send the revised version of the questions (attached) to PJM and Dominion first thing tomorrow morning (Tuesday 10/17).

Thanks,  
Chris

Chris Drake  
Attorney-Adviser  
U.S. Department of Energy, Office of General Counsel  
Office of Electricity & Fossil Energy (GC-76)  
Forrestal North, Room 6B-256  
Tel. 202.586.2919  
Christopher.Drake@hq.doe.gov

This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.



PJM and Dominion:

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**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Drake, Christopher  
**Cc:** Rosenbaum, Matthew  
**Subject:** RE: Questions for PJM and Dominion  
**Date:** Tuesday, October 17, 2017 9:19:09 AM

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We'll swing by as soon as Chris gets in.

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Tuesday, October 17, 2017 7:24 AM  
**To:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Cc:** Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** RE: Questions for PJM and Dominion

Chris & Kathy:

I discussed this with Matt and would like to talk to either of you. Could you please stop by any time this morning?

Thanks,  
Rakesh

-----Original Message-----

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**Sent:** Monday, October 16, 2017 3:52 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Cc:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
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Sent: Monday, October 16, 2017 1:51 PM

To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>;

Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>

Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>

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Forrestal 6D-033  
(202) 586-0503  
Katherine.Konieczny@hq.doe.gov



**From:** Drake, Christopher  
**To:** Jereza, Catherine; Konieczny, Katherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew  
**Subject:** Short discussion on factual material for 202(c) rehearing order  
**Attachments:** DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx

---

All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-51 has a few edits that we will incorporate when the time comes.



**From:** Konieczny, Katherine  
**To:** Drake, Christopher; Jereza, Catherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew; Mills, Brian  
**Subject:** RE: Short discussion on factual material for 202(c) rehearing order  
**Date:** Friday, October 20, 2017 1:55:10 PM  
**Attachments:** DRAFT Order 202-18-1 2017-10-19 500p.docx  
DRAFT Summary of Findings Order No. 202-18-1 2017-10-20 130pm.docx

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Please use the attached documents instead. I apologize that you received a version with unnecessary comment bubbles and tracked changes.

-----Original Appointment-----

**From:** Drake, Christopher  
**Sent:** Thursday, October 19, 2017 5:26 PM  
**To:** Drake, Christopher; Jereza, Catherine; Konieczny, Katherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew  
**Subject:** Short discussion on factual material for 202(c) rehearing order  
**When:** Friday, October 20, 2017 2:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** TPTA

<< File: DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx  
>>

All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-S1 has a few edits that we will incorporate when the time comes.



**From:** Mikolop, Todd S.  
**To:** "[The.Secretary@hq.doe.gov](mailto:The.Secretary@hq.doe.gov)"; [Hoffman, Patricia](#); [Jereza, Catherine](#); [Batra, Rakesh](#); [Konieczny, Katherine](#)  
**Cc:** [Finto, Kevin](#); [Michael Regulinski](#); [Pincus, Steven](#); "[sanjay.narayan@sierraclub.org](mailto:sanjay.narayan@sierraclub.org)"  
**Subject:** DOE Order No. 202-17-4: Virginia Electric and Power Company and PJM Interconnection LLC Motion for Leave to Answer and Answer to Sierra Club's Petition for Rehearing  
**Date:** Friday, October 20, 2017 2:14:29 PM  
**Attachments:** [image001.jpg](#)  
[Virginia Elec. Power FPA 202\(c\) Motion for Leave to Answer Sierra Club 2nd Rehearing Request 67018691 4.PDF](#)

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Dear Secretary Perry,

On behalf of Kevin Finto, counsel for the Virginia Electric and Power Company (Dominion Energy Virginia), and PJM Interconnection LLC, please find the attached Motion for Leave to Answer and Answer to the Sierra Club's Petition for Rehearing of the DOE's Order No. 202-17-4.

Please contact Mr. Finto or me if you have any questions or require further information regarding this proceeding.

Respectfully submitted,

Todd S. Mikolop



**Todd Mikolop**  
Senior Attorney  
[tmikolop@hunton.com](mailto:tmikolop@hunton.com)  
p 202.778.2249  
m(b) (6)  
[bio](#) | [vCard](#) | [blog](#)

Hunton & Williams LLP  
2200 Pennsylvania Avenue, NW  
Washington, DC 20037

[hunton.com](http://hunton.com)



**UNITED STATES OF AMERICA  
BEFORE THE  
DEPARTMENT OF ENERGY**

Virginia Electric and Power Company       )  
(Dominion Energy Virginia)                )

Order No. 202-17-4

**MOTION FOR LEAVE TO ANSWER AND ANSWER OF  
VIRGINIA ELECTRIC AND POWER COMPANY  
AND PJM INTERCONNECTION LLC**

Pursuant to Rules 212 and 713 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission” and “Commission Rules”), 18 C.F.R. §§ 385.212, 385.713(c)(3)<sup>1</sup>, the Virginia Electric and Power Company (“Dominion Energy Virginia”) and PJM Interconnection LLC (“PJM”) respectfully submits to the Secretary for the Department of Energy (“Secretary” and “Department”) this Motion for Leave to Answer (“Motion”) and Answer (“Answer”) to the Sierra Club’s Petition for Rehearing (“Petition”) of the Secretary’s Order No. 202-17-4 (the “Renewal Order”) submitted on October 5, 2017.

**I. Point of Order**

As an initial point of order, while the Renewal Order does not explicitly identify the parties to this proceeding, Dominion Energy Virginia seeks to clarify that it is a party of right. Commission Rule 102, 18 C.F.R. §385.102(c)(1) states that a “party” means “any respondent to a proceeding” and subsection (f)(1) states that a respondent means any person “to whom an order

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<sup>1</sup> The Department has previously indicated that its regulations pertaining to Federal Power Act § 202(c) emergency authority at 10 C.F.R. § 205.370 *et seq.* do not contain a rehearing section, but that parties should look to guidance on rehearing procedures from the Commission Rules. E-mail from Lot Cooke, Dep’t of Energy Office of Gen. Counsel, to Linda Alle-Murphy, Assoc., Schnader Harrison Segal & Lewis L.L.P. (December 28, 2005 9:05 AM) *available at*: <https://energy.gov/oe/downloads/question-and-answer-procedural-questions-application-rehearing-order-no-202-05-02> (“The DOE regulations on emergency orders, 10 CFR section 205.370, *et seq.*, do not have specific rehearing section, but a party seeking rehearing can look for procedural guidance to FERC’s Rules of Practice and Procedure, 18 CFR Part 385.”). Therefore, to the extent possible, this Motion and Answer is stylized under the Commission Rules. However, in doing so, Dominion Energy Virginia does not necessarily concede that the Commission Rules govern this proceeding.



... is issued by the Commission.” The Renewal Order issued by the Secretary is explicitly directed at Dominion Energy Virginia: Dominion Energy Virginia “shall” operate Units 1 and/or 2 of the Yorktown Power Station (“Yorktown”) as directed by PJM; Dominion Energy Virginia “shall continue to comply with the dispatch methodology submitted by PJM; Dominion Energy Virginia “shall” report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage data associated with their operation.<sup>2</sup> Because Dominion Energy Virginia is a person to whom the Renewal Order is issued, it is a respondent and, therefore, a party of right to this proceeding.<sup>3</sup>

## **II. Motion for Leave to Answer**

Dominion Energy Virginia and PJM respectfully move for leave to answer the Petition. While Commission Rules discourage answers to rehearing requests, a party may answer a rehearing request if permitted by the decisional authority (here the Secretary or his designee).<sup>4</sup> For its part, the Commission has permitted a party to answer a request for rehearing when those answers help to clarify complex issues, provide additional information, or are otherwise helpful in the Commission’s decision-making process.<sup>5</sup> Likewise, the Department has permitted “submission” of any additional comments, information, or analysis on the operation of and/or effects of an order under FPA § 202(c) as such operation and/or effects may be relevant to a

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<sup>2</sup> Renewal Order at 2.

<sup>3</sup> Dominion Energy Virginia’s position as a party of right to this proceeding is explicitly evident from the face of the Renewal Order. However, out of an abundance of caution, and to preserve our rights, should the Secretary deem Dominion Energy Virginia not to be a party to this proceeding, then, pursuant Commission Rule 214, 18 C.F.R. § 385.214, Dominion Energy Virginia respectfully moves to intervene in this proceeding. Dominion Energy Virginia’s interest in this proceeding is clear by the number of actions ordered of it under the Renewal Order.

<sup>4</sup> 18 C.F.R. § 385.213.

<sup>5</sup> See *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 125 FERC ¶ 61,042 at P 14 (2008) (accepting answer to rehearing request because the Commission determined that it has “assisted us in our decision-making process.”); *FPL Marcus Hook, L.P. v. PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,289 at P 12 (2008) (accepting “PJM’s and FPL’s answers [to rehearing requests], because they have provided information that assisted us in our decision-making process.”).



decision on the request for rehearing.<sup>6</sup> As demonstrated below, all of these criteria are met by the Answer. Therefore, Dominion Energy Virginia and PJM respectfully request that the Secretary grant this Motion because the Answer will help clarify the record and contribute to an understanding of the operation and/or effects of the Renewal Order.

### **III. Answer**

Sierra Club raises two issues in its Petition: (1) whether the Department satisfied the National Environmental Policy Act in issuing the Renewal Order by invoking a categorical exclusion; and (2) whether the Department, in issuing the Renewal Order demonstrated that it mandates environmental compliance to the maximum extent practicable or limits the hours of operation to the those necessary to meet the emergency or serve the public interest. For the reasons set forth below, the answer to both questions is yes. The Sierra Club's arguments are without merit.

#### **A. The Department Properly Categorically Excluded the Renewal Order from Review under the National Environmental Policy Act.**

Sierra Club asserts that the Department improperly applied a "categorical exclusion" in determining that the Renewal Order was not subject to further review pursuant to the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* ("NEPA"). As it did in its first Petition submitted on July 13, 2017, Sierra Club first suggests that the Department did not comply with the statute and asks the Secretary to do more review than NEPA requires.

The Department fulfilled its NEPA obligations by analyzing the effects of the Renewal Order and determining that activities were categorically excluded from NEPA's requirement to prepare either an environmental assessment or an environmental impact statement. Further,

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<sup>6</sup> *Response to Requests for Rehearing of DOE Dec. 20, 2005 DOE Order No. 202-05-3, Order No. 202-06-1, Docket No. EO-05-01, Feb. 17, 2006.*



Sierra Club fails to recognize authority granted by Congress in the FPA regarding applicability and enforceability of environmental law while the Renewal Order is in effect. The Department appropriately determined that issuing the Renewal Order is an action that is categorically excluded from further NEPA analysis.

1. NEPA Allows for Categorical Exclusions

NEPA is a procedural statute that requires a federal agency to assess the environmental effects of a proposed action prior to making a decision on the action. An agency assesses a major federal action significantly affecting the human environment in a detailed statement known as an “environmental impact statement” (“EIS”).<sup>7</sup> If the agency determines from the outset that the action does not require preparation of an EIS, or determines that analysis is required to determine whether to prepare an EIS, the agency is authorized by regulation to prepare an “environmental assessment” (“EA”).<sup>8</sup> An agency may also determine that certain categories of actions do not individually or cumulatively have a significant effect on the human environment and, therefore, neither an EA nor an EIS is required. These categories of actions are known as “categorical exclusions.”<sup>9</sup>

Categorical exclusions are individually determined by federal agencies using agency-specific procedures.<sup>10</sup> The Department establishes categorical exclusions pursuant to a rulemaking for defined classes of actions that the Department determines are supported by a record showing that they normally will not have significant environmental impacts, individually or cumulatively.<sup>11</sup> This record is based on the Department’s experience, the experience of other

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<sup>7</sup> 42 U.S.C. § 4332(c).

<sup>8</sup> 40 C.F.R. § 1501.4(a)-(c).

<sup>9</sup> *Id.* at § 1508.4.

<sup>10</sup> *Id.* at § 1501.4(a)(2).

<sup>11</sup> 76 Fed Reg. 63,765 (Oct. 13, 2011).



agencies, completed environmental reviews, professional and expert opinion, and scientific analyses.<sup>12</sup> The Department also considers public comment received during the rulemaking.<sup>13</sup>

Categorical exclusions are not exemptions or waivers of NEPA review, “they are simply one type of NEPA review.”<sup>14</sup> Once established, categorical exclusions provide an efficient tool to complete the NEPA environmental review process for proposals that normally do not require more resource-intensive EAs or EISs.<sup>15</sup> The use of categorical exclusions can reduce paperwork and delay, so that EAs or EISs are targeted toward proposed actions that truly have the potential to cause significant environmental effects.<sup>16</sup>

## 2. The Renewal Order fits within the Power Management Categorical Exclusion

The Department’s categorical exclusions include activities related to power marketing services applied in the Renewal Order.<sup>17</sup> These activities include, but are not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities, provided that the operations of generating projects would remain within normal operating limits.<sup>18</sup>

As part of its environmental review responsibilities under NEPA, a Department NEPA Compliance Officer was required to examine the proposed Renewal Order to determine whether it qualified for a categorical exclusion. The Department’s process is consistent with that described in the Council on Environmental Quality’s (“CEQ”) Categorical Exclusion Guidance: “When determining whether to use a categorical exclusion for a proposed activity, a Federal agency must carefully review the description of the proposed action to ensure that it fits within

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<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> 75 Fed. Reg. 75,631.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> 10 C.F.R. Pt. 1021, Subpt. D, App. B, B4.4.

<sup>18</sup> *Id.*



the category of actions described in the categorical exclusion. Next, the agency must consider the specific circumstances associated with the proposed activity, to rule out any extraordinary circumstances that might give rise to significant environmental effects requiring further analysis and documentation” in an EA or EIS.<sup>19</sup> The Department’s record of this process is known as a “Record of Categorical Exclusion Determination.”

As described in the Record of Categorical Exclusion Determination accompanying the Renewal Order and included in the docket for the Renewal Order<sup>20</sup>, the Department applied a single categorical exclusion that applies to power marketing services and activities. In the first Application for Order submitted on June 13, 2017 and incorporated by reference in the Renewal Application, PJM requested authorization to order Dominion Energy Virginia to operate the Yorktown Units 1 and 2 when total demand for electricity “exceeds certain levels to avoid impacting electric reliability and potential violations of Reliability Standards developed by the North American Electric Reliability Corporation (“NERC”) in the North Hampton Roads area.”<sup>21</sup> This type of activity fits squarely within the power marketing services and activities exclusion, which includes load balancing “that helps ensure system reliability by managing energy resources to be equal with load.”<sup>22</sup> The Record of Categorical Exclusion also stated that “DOE has determined that the proposed action identified above will not have a significant effect on the human environment.”<sup>23</sup>

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<sup>19</sup> 75 Fed. Reg. at 75,631.

<sup>20</sup> Findings of Fact at 9.; Records Of Categorical Exclusion Determination Order No. 202-17-4 (Sept. 11, 2017)

<sup>21</sup> Application at 2.

<sup>22</sup> 76 Fed. Reg. 63,777 (Oct. 13, 2011).

<sup>23</sup> Records of Categorical Exclusion at 3.



3. Sierra Club's NEPA arguments are meritless.

Sierra Club argues that “the operations required by the Department’s Order do not comply with the Clean Air Act standards and therefore are not within normal limits.”<sup>24</sup> The Department properly applied the power marketing and services categorical exclusion because the operations of Yorktown Units 1 and/or 2 will remain within normal operating limits.<sup>25</sup> The term “normal operating limits” means the capacity of generating units. As stated in the Records of Categorical Exclusion, “[t]he expected combined operation of Yorktown Units 1 and 2 reacting to electricity reliability emergencies under DOE Order No. 202-17-4 will be well below normal operating capacities and limits of Yorktown Units 1 and 2.”<sup>26</sup>

As described in the Application and in the Renewal Order, Dominion Energy Virginia had been operating the subject units under authorization from the Environmental Protection Agency (“EPA”) under an Administrative Compliance Order on Consent (“ACO”) that includes further operational limitations restricting the capacity of the generating units. In the Summary of Findings accompanying its Renewal Order, the Department noted that it had consulted with the EPA and reviewed estimated emissions and water usage data, and that the Renewal Order “continues the operational limitations” in the EPA’s ACO.<sup>27</sup> These limits, approved by a federal agency with jurisdiction, can only be considered “normal” or, truly, more restrictive than “normal” operating limits associated with generating capacity. Indeed, the on-going normalcy of these limits is confirmed every two weeks when Dominion Energy Virginia’s reports to the

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<sup>24</sup> Sierra Club Petition at 1.

<sup>25</sup> The Department should not be misled by the Sierra Club’s suggestion in subheading IV.A. of the Petition that the Department “should assess the impacts of its action under the National Environmental Policy Act.” The analysis that led to application of a categorical exclusion is, in itself, an assessment of the impacts under NEPA. That Sierra Club wishes the Department had done more than required by law is of no consequence to whether the Department fully complied with NEPA.

<sup>26</sup> Records of Categorical Exclusion at 3.

<sup>27</sup> Summary of Findings at 9.



Department all dates on which Yorktown Units 1 and/or 2 have operated and the associated air emissions and water usage for those dates.

Sierra Club's argument that the Renewal Order compels violations of EPA's Mercury and Air Toxics Standards under the Clean Air Act, which consequently cannot be considered "normal operations,"<sup>28</sup> is a red herring. Congress carefully crafted FPA § 202(c) to take into account potential violations of federal environmental laws that may result from the issuance of an emergency order. That compliance with such an order "results in noncompliance with, or causes such party to not comply with, any Federal, State, or local environmental law or regulation, such omission or action shall not be considered a violation of such environmental law or regulation, or subject such party to any requirement, civil or criminal liability, or a citizen suit under such environmental law or regulation."<sup>29</sup> Thus, any emissions resulting from compliance with the Renewal Order that may not comply with regulations promulgated under the Clean Air Act are not violations, much less emissions that are not "normal." Because FPA § 202(c) provides this exemption, application of the powering marketing services and power management activities categorical exclusion to issue the Renewal Order would not result in violations of the Clean Air Act and was consequently appropriate.

**B. Sierra Club Misconstrues FPA Requirements where an Order Conflicts with Environmental Regulations.**

According to FPA § 202(c)(2), where, as in this proceeding, an order conflicts with a Federal environmental law, the Department "shall ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent

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<sup>28</sup> *Id.* at 14.

<sup>29</sup> FPA § 202 (c)(3).



with any applicable Federal, State, or local environmental law or regulation and minimizes any adverse environmental impacts.” The Renewal Order itself describes in detail the manner in which the Department has fulfilled these requirements. Sierra Club, however, challenges the Department’s consultation with the EPA regarding short-term emissions limitations and misconstrues the actual extent of Yorktown Units 1 and/or 2’s operations in an effort to expand measures the Department may require to limit emissions.

1. The Department Properly Consulted with the EPA.

Sierra Club alleges that the Department’s consultation with the EPA was deficient because Sierra Club thinks the record does not contain sufficient information.<sup>30</sup> FPA § 202 (c)(4)(B) requires consultation with the primary Federal agency with expertise in the environmental interest (here, the EPA) but does not proscribe how the agencies should consult or what records should be included in the public docket beyond any conditions the EPA determines are necessary to minimize adverse impacts to the extent practicable. As noted in the Summary of Findings, after consulting with EPA, and consistent with that consultation, the Department found that the only appropriate short-term emissions limitation on Yorktown Units 1 and 2 would be to curtail operating hours to the maximum extent practicable for reliability purposes. By consulting with the EPA, the Department met its statutory obligation. Even if, in its discretion, the Department considered doing more, the fact is that the limited use – on an emergency basis – of Yorktown Units 1 and/or 2 would be reason enough to not consult any more than the Department did. Sierra Club’s desire that the Department had done more is simply not supported by law or the instant facts.

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<sup>30</sup> Petition at 9.



2. The Limitations on Operations Are Appropriate.

Sierra Club misconstrues the extent to which Yorktown Units 1 and/or 2 will operate pursuant to the Renewal Order. While conceding that curtailing operating hours is the only practicable means of limiting emissions, Sierra Club implies that the Units will be operating full-time for 18-20 months. This is simply not the case. The Renewal Order, in fact, only authorizes operation of Yorktown Units 1 and/or 2 “in the event generation ... is needed to maintain grid reliability.” History and future projections show that the need is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month period.<sup>31</sup> Therefore, given the relatively low use of the Units, there is simply no need for the Department to require Dominion Virginia Energy to limit operations any more than the Renewal Order already does.

Finally, Sierra Club suggests that demand side management or distributive generation would reduce the number of hours of operation of Yorktown 1 and 2. The Renewal Order specifically requires PJM and Dominion to exhaust all reasonably available resources including demand side management and behind the meter generation sources prior to operating Yorktown Unit 1 or Yorktown Unit 2.<sup>32</sup> Sierra Club provides comments by Ariel Horowitz suggesting that alternatives for distributive generation or demand side management might be available to solve the problem. Horowitz, however, admits that he does not know the load levels or deficiencies that need to be addressed.<sup>33</sup> Moreover, far more robust solutions were carefully considered in the Corps permit process and failed to prove practicable. Such a demonstration for demand side management or distributive generation is made more difficult by the fact that Skiffes Creek Project is the chosen and authorized solution and any other alternative would have only a temporary benefit.

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<sup>31</sup> See Renewal Application dated August 24, 2017, at page 3.

<sup>32</sup> Renewal Order at 2; Findings of Fact at 9, 10.

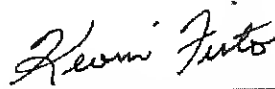
<sup>33</sup> Horowitz comments at 19.



#### IV. Conclusion

Dominion Energy Virginia respectfully requests that the Secretary grant its Motion and take into consideration this Answer.

Respectfully submitted,



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Kevin J. Finto  
Hunton & Williams, LLP  
951 East Byrd Street  
Richmond, VA 23219  
(804) 788-8568 (Phone)  
*Counsel for*  
Virginia Electric and Power Company

Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
120 Tredegar Street  
Richmond, VA 23219  
(804) 819-2794 (Phone)



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Steven R. Pincus  
Associate General Counsel  
PJM Interconnection, LLC  
2750 Monroe Boulevard  
Audubon, PA 19403  
(610) 666-4370 (phone)

Dated: October 20, 2017



## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon:

Pat Hoffman, U.S. Department of Energy  
Katherine Konieczny, Department of Energy  
Catherine Jereza, U.S. Department of Energy  
Rakesh Batra, U.S. Department of Energy  
Sanjay Narayan, Sierra Club

Dated at Richmond, VA this 20th day of October, 2017.

Kevin J. Finto  
Hunton & Williams, LLP  
951 East Byrd Street  
Richmond, VA 23219  
(804) 788-8568 (Phone)  
*Counsel for*  
Virginia Electric and Power Company



Document withheld in full  
pursuant to Exemption (b)(5)



**From:** Mikolop, Todd S.  
**To:** [Secretary Perry](#); [Hoffman, Patricia](#); [Jereza, Catherine](#); [Batra, Rakesh](#); [Konieczny, Katherine](#)  
**Cc:** [Finto, Kevin](#); [Michael Regulinski](#); [Pincus, Steven](#); "[sanjay.narayan@sierraclub.org](mailto:sanjay.narayan@sierraclub.org)"  
**Subject:** DOE Order No. 202-17-4: Virginia Electric and Power Company and PJM Interconnection LLC Motion for Leave to Answer and Answer to Sierra Club's Petition for Rehearing  
**Date:** Friday, October 20, 2017 2:27:59 PM  
**Attachments:** [image001.jpg](#)  
[Virginia Elec. Power FPA 202\(c\) Motion for Leave to Answer Sierra Club 2nd Rehearing Request 67018691 5.PDF](#)

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(Re-sending due to a rejected e-mail address)

Dear Secretary Perry,

On behalf of Kevin Finto, counsel for the Virginia Electric and Power Company (Dominion Energy Virginia), and PJM Interconnection LLC, please find the attached Motion for Leave to Answer and Answer to the Sierra Club's Petition for Rehearing of the DOE's Order No. 202-17-4.

Please contact Mr. Finto or me if you have any questions or require further information regarding this proceeding.

Respectfully submitted,

Todd S. Mikolop



**Todd Mikolop**  
Senior Attorney  
[tmikolop@hunton.com](mailto:tmikolop@hunton.com)  
p 202.778.2249  
m(b) (6)  
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Hunton & Williams LLP  
2200 Pennsylvania Avenue, NW  
Washington, DC 20037

[hunton.com](http://hunton.com)



**From:** Drake, Christopher  
**To:** Batra, Rakesh  
**Subject:** RE: Password for non-public PJM 202(c) applications  
**Date:** Monday, October 23, 2017 1:56:26 PM

---

Sure - I'll be right up

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Monday, October 23, 2017 1:55 PM  
**To:** Drake, Christopher <Christopher.Drake@hq.doe.gov>  
**Subject:** RE: Password for non-public PJM 202(c) applications

Chris:

Could you please stop by (b) (5)

for 5-10 minutes?

Thanks,  
Rakesh

-----Original Message-----

**From:** Drake, Christopher  
**Sent:** Monday, October 23, 2017 12:10 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Cc:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Subject:** Password for non-public PJM 202(c) applications

Kathy,

(b) (5)

Chris Drake  
Attorney-Adviser  
U.S. Department of Energy, Office of General Counsel  
Office of Electricity & Fossil Energy (GC-76)  
Forrestal North, Room 6B-256  
Tel. 202.586.2919  
Christopher.Drake@hq.doe.gov



**From:** Pincus, Steven  
**To:** Batra, Rakesh  
**Cc:** Michael Regulinski; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Konieczny, Katherine; Mohammed Alfayyoumi  
**Subject:** RE: Information request PJM and Dominion Responses  
**Date:** Monday, October 23, 2017 4:57:10 PM

---

Dear Mr. Batra: PJM and Dominion submits response to the questions below. Please do not hesitate to contact me if you have any questions.

Respectfully submitted,

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

---

**From:** Batra, Rakesh [mailto:[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)]

**Sent:** Tuesday, October 17, 2017 9:58 AM

**To:** Pincus, Steven; Michael Regulinski; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.

**Subject:** Information request

External Email! Think before clicking links or attachments.

PJM and Dominion:

DOE seeks more information to better understand alternatives to Yorktown Unit 1 & 2 operation.

Please provide an Initial response to the following questions in writing no later than Wednesday, October 18. Additional information, if any, should be submitted by Monday, October 23.

- According to Appendix II of PJM's June 2017 Application, "PJM has approximately 14 MW of PJM Demand Response available on the peninsula and Dominion Energy Virginia has about 20 MW of Demand Side Management capability on the peninsula in the form of remote air conditioning control as well as the ability to curtail a large industrial customer an average of 75 MWs for transmission emergencies (but the air conditioning control is limited to a total of 120 hours and for 30 days during the summer months). Are those numbers still accurate? If not, what are the correct numbers?

**PJM Response:** The 14 MWs of PJM Demand Response available on the Virginia Peninsula was based on PJM's analysis for the 2016/2017 Planning Year. This value changes once a year and the value for the 2017/2018 Planning Year is 26 MWs. This change is not material as it does not alter the analysis submitted in the Federal Power Act Section 202(c) application submitted on June 13, 2017 (the "Application") and the renewal application submitted on August 24, 2017 ("Renewal Application"). Of the 26 MWs of Demand Response for the 2017/2018 Planning Year, 14.5 MWs are only available from 6/1 to 9/30, and 11 MW are available from 6/1 to 10/31, and during the month of May. Only 0.7 MWs is available throughout the entire Planning Year. PJM analyses continue to indicate the reliability issues on the Virginia Peninsula cannot be mitigated by the available Demand Response alone and the need to rely on Yorktown Units 1 and 2 remains as stated in the Application and Renewal Application. Most of the reliability problems are voltage related and Demand Response resources are not able to provide the dynamic reactive support that Yorktown 1 and 2 units are capable of providing.



**Dominion Response:** Dominion Energy Virginia still has available about 20 MW of Demand Side Management capability on the peninsula in the form of remote air conditioning control (limited to a total of 120 hours and for 30 days during the summer months). As stated in Appendix III of the June 13 Application, Dominion Energy Virginia will reserve this capability for the highest need days to reduce load in the North Hampton Roads area on the Virginia Peninsula. With regard to Dominion Energy Virginia's ability to curtail a large industrial customer an average of 75 MWs for transmission emergencies, this curtailment is only available where the customer load is about 99 MW, so that the reduced customer total load is not more than 24 MWs. However, this customer's load during the 2017 summer months has averaged about 40 MWs total, so the 75 MW reduction is not available.

- According to PJM's RTEP Input Assumptions and Scope Whitepaper, Dominion could have a maximum of 130 MW of distributed solar generation available during the summer. Is that number still accurate? If not, what is the correct number?

**PJM Response:** The 130 MWs of distributed solar generation identified in PJM's RTEP Input Assumptions and Scope Whitepaper while still accurate does not represent "a maximum of 130 MW of distributed solar generation available during the summer." More accurately it represents PJM's forecast of the amount of distributed solar generation that would occur in the entire Dominion zone at typical peaking conditions in 2017. Moreover, distributed solar would already be accounted for in load values for the load forecast studies performed by PJM and Dominion Energy Virginia.

- Neither PJM nor Dominion stated that alternative resources besides demand response and distributed generation, including battery storage, would be available to offset power loss during a scheduled transmission outage. Is that still accurate? If not, what alternative resources are available, and how much power could they provide?

**PJM Response:** In Appendix II of the Application (and the Renewal Application which incorporates by reference the information from Appendix II), PJM stated that Dominion also "owns and operates on Virginia Peninsula and the oil-fired at the Yorktown Power Station ("Yorktown Unit 3"). While Yorktown Unit 3 with a capacity of 789 MW could, in theory, be available at higher load conditions, Yorktown Unit 3 has limitations which prevent PJM from relying on that unit consistently and for extended periods of time. Yorktown Unit 3 is operating pursuant to a capacity factor limitation to comply with MATS under the rule's limited use oil-fired unit provisions defined in 40 CFR 63.10042. These provisions limit Unit 3's annual capacity factor when burning oil to less than 8 percent of its maximum capacity or nameplate heat input, whichever is less, averaged over a 24 month block contiguous period, the first of which commenced on May 1, 2015, (the first of the month following the compliance date specified in the MATS rule at 40 CFR 63.9984 (April 16, 2015). Exceeding the 8 percent capacity factor limitation would subject the unit to stringent emission limits for particulate matter, mercury, hydrogen chloride and hydrogen fluoride that would require extensive and costly retrofit pollution controls." This information on alternative resources including the available Demand Response as updated above, is still accurate.

- According to the Summary of Findings issued alongside DOE Order No. 202-17-4, the Yorktown coal units offset 950 MW of load that could be shed in a transmission outage. Is



that number still accurate? If not, what is the correct number?

**PJM Response:** The information regarding the Remedial Action Scheme or RAS as stated in the Application and Renewal Application is still accurate. Absent the availability of Yorktown Units 1 and 2, upon loss of certain facilities, the RAS will trip the remaining feeds to the Virginia Peninsula which sheds electric service to approximately 950 MWs of load to prevent voltage collapse during certain peak periods.

Thanks,  
Rakesh Batra  
202-586-1283



Document withheld in full  
pursuant to Exemption (b)(5)



**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Jereza, Catherine; Drake, Christopher; Rosenbaum, Matthew  
**Subject:** RE: PJM / Dominion order  
**Date:** Wednesday, October 25, 2017 10:34:49 AM

---

Katie and Rakesh,

(b) (5)

-Kathy

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Wednesday, October 25, 2017 10:00 AM  
**To:** Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Konieczny, Katherine  
<Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>  
**Subject:** FW: PJM / Dominion order

Cathy:

(b) (5)

Chris, please let us know if you or Kathy feel otherwise.

Thanks,  
Rakesh

-----Original Message-----

**From:** Jereza, Catherine  
**Sent:** Wednesday, October 25, 2017 9:35 AM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Subject:** PJM / Dominion order

Hi Rakesh - (b) (5)

Thanks  
Katie



**From:** Pincus, Steven  
**To:** Batra, Rakesh; Michael Regulinski  
**Cc:** Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
**Date:** Wednesday, October 25, 2017 4:16:08 PM  
**Attachments:** RE Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching.msg

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Rakesh: Attached is Mike Regulinski's reply email to your email message dated September 5, 2017. Please let us know if this is not what you need or if you have any other questions.

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

**From:** Batra, Rakesh [mailto:[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)]

**Sent:** Wednesday, October 25, 2017 3:53 PM

**To:** Michael Regulinski

**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III

**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

**External Email! Think before clicking links or attachments.**

For some reason the below email from September 5, 2017, was not responded. Could you please provide/clarify the definition of operational limit?

Thanks,

Rakesh

---

**From:** Batra, Rakesh

**Sent:** Tuesday, September 05, 2017 11:40 AM

**To:** 'Michael Regulinski' <[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)>

**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; 'craig.glazer@pjm.com' <[craig.glazer@pjm.com](mailto:craig.glazer@pjm.com)>; McGlynn, Paul <[Paul.McGlynn@pjm.com](mailto:Paul.McGlynn@pjm.com)>; Bresler, Frederick S. (Stu) III <[Stu.Bresler@pjm.com](mailto:Stu.Bresler@pjm.com)>

**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Could you please clarify the definition of operational limit?

Thanks,

Rakesh

---

**From:** Michael Regulinski [mailto:[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)]

**Sent:** Tuesday, September 05, 2017 11:04 AM

**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>

**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; 'craig.glazer@pjm.com' <[craig.glazer@pjm.com](mailto:craig.glazer@pjm.com)>; McGlynn, Paul <[Paul.McGlynn@pjm.com](mailto:Paul.McGlynn@pjm.com)>; Bresler, Frederick S. (Stu) III <[Stu.Bresler@pjm.com](mailto:Stu.Bresler@pjm.com)>

**Subject:** FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let me know if you have further questions. Mike



	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVar	65.0	81.0
Leading MVar	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
teline: 738-2794  
P: (804) 819-2794  
C: (b) (6)

[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)

---

**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]  
**Sent:** Thursday, August 24, 2017 11:28 AM  
**To:** Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.  
**Cc:** Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching PJM /Dominion:  
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?  
Thanks,  
Rakesh

---

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**From:** Michael Regulinski  
**To:** Batra, Rakesh  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
**Date:** Tuesday, September 05, 2017 6:03:01 PM

---

External Email! Think before clicking links or attachments.

Rakesh,

The installed capacity rating for Yorktown Units 1 and 2 was lowered to 135 MW each, effective in June, 2017. We directed PJM to lower the values in the PJM eDART system. We have not performed normal long term maintenance on either unit so we have constrained the units to 135 MWs due to operational concerns. This load level allows us to meet the reliability needs of PJM and safely operate the units. We do not plan to operate the units higher than 135 for any reason.

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

---

**From:** Batra, Rakesh [mailto:[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)]  
**Sent:** Tuesday, September 05, 2017 11:40 AM  
**To:** Michael Regulinski (Services - 6)  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
 Could you please clarify the definition of operational limit?  
 Thanks,  
 Rakesh

**From:** Michael Regulinski [mailto:[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)]  
**Sent:** Tuesday, September 05, 2017 11:04 AM  
**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>  
**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; 'craig.glazer@pjm.com' <[craig.glazer@pjm.com](mailto:craig.glazer@pjm.com)>; McGlynn, Paul <[Paul.McGlynn@pjm.com](mailto:Paul.McGlynn@pjm.com)>; Bresler, Frederick S. (Stu) III <[Stu.Bresler@pjm.com](mailto:Stu.Bresler@pjm.com)>  
**Subject:** FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
 Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVar	65.0	81.0



Leading MVAR	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
teline: 738-2794  
P: (804) 819-2794  
C: (b) (6)  
[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)

---

**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]  
**Sent:** Thursday, August 24, 2017 11:28 AM  
**To:** Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.  
**Cc:** Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
PJM /Dominion:  
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?  
Thanks,  
Rakesh

---

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**From:** Michael Regulinski  
**To:** Batra, Rakesh  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; "craig.glazer@pjm.com"; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
**Date:** Wednesday, October 25, 2017 4:37:29 PM  
**Attachments:** RE Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching.msg

---

Rakesh, as we discussed on the phone, we found our response to the September 5 email. I will ask management about the difference between the operational limits shown in our email response and the MW output levels shown in the August 24 Yorktown Run Time report for the July runs.

Thanks,

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

---

**From:** Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]  
**Sent:** Wednesday, October 25, 2017 3:53 PM  
**To:** Michael Regulinski (Services - 6)  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
 For some reason the below email from September 5, 2017, was not responded. Could you please provide/clarify the definition of operational limit?  
 Thanks,  
 Rakesh

---

**From:** Batra, Rakesh  
**Sent:** Tuesday, September 05, 2017 11:40 AM  
**To:** 'Michael Regulinski' <michael.regulinski@dominionenergy.com>  
**Cc:** Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>  
**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
 Could you please clarify the definition of operational limit?  
 Thanks,  
 Rakesh

---

**From:** Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]  
**Sent:** Tuesday, September 05, 2017 11:04 AM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Cc:** Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>



**Subject:** FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVAR	65.0	81.0
Leading MVAR	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
tieline: 738-2794  
P: (804) 819-2794  
C: (b) (6)  
[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)

---

**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]  
**Sent:** Thursday, August 24, 2017 11:28 AM  
**To:** Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.  
**Cc:** Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
PJM /Dominion:  
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?  
Thanks,  
Rakesh

---

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**From:** Konieczny, Katherine  
**To:** Mills, Brian; Drake, Christopher; Jereza, Catherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew  
**Cc:** Le Duc, Edward  
**Subject:** RE: Short discussion on factual material for 202(c) rehearing order  
**Date:** Thursday, October 26, 2017 9:22:18 AM

---

(b) (5)

Please feel free to reach out for further explanation.

Thanks,  
Kathy

-----Original Message-----

**From:** Mills, Brian  
**Sent:** Wednesday, October 25, 2017 2:36 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Cc:** Le Duc, Edward <Edward.LeDuc@hq.doe.gov>  
**Subject:** RE: Short discussion on factual material for 202(c) rehearing order

Re: Order No. 202-18-1

(b) (5)

-----Original Message-----

**From:** Konieczny, Katherine  
**Sent:** Friday, October 20, 2017 1:55 PM  
**To:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>  
**Subject:** RE: Short discussion on factual material for 202(c) rehearing order

Please use the attached documents instead. I apologize that you received a version with unnecessary comment bubbles and tracked changes.

-----Original Appointment-----

**From:** Drake, Christopher  
**Sent:** Thursday, October 19, 2017 5:26 PM  
**To:** Drake, Christopher; Jereza, Catherine; Konieczny, Katherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew  
**Subject:** Short discussion on factual material for 202(c) rehearing order  
**When:** Friday, October 20, 2017 2:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** TPTA

<< File: DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx >>

All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-



51 has a few edits that we will incorporate when the time comes.



**From:** Michael Regulinski  
**To:** Batra, Rakesh  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; "craig.glazer@pjm.com"; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
**Date:** Friday, October 27, 2017 2:48:36 PM

---

Rakesh, you requested an explanation of the difference between the operational limits for Yorktown Units 1 and 2 which were lowered to 135 MW each, effective in June, 2017, and the MW output levels shown in the Yorktown July 2017 Run Time report for the July 11-25 runs directed by PJM and reported to DOE on August 24, which exceeded 135 MWs on several occasions.

The MW values provided in the Yorktown Run Time report for the July runs reflect the gross values of plant MW output. Emission data is determined on gross MW values. The 135 MW operational limit reflects the net MW output of the plant, which is the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units.

Please let me know if you have additional questions. Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

---

**From:** Michael Regulinski (Services - 6)

**Sent:** Wednesday, October 25, 2017 4:37 PM

**To:** 'Batra, Rakesh'

**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III

**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Rakesh, as we discussed on the phone, we found our response to the September 5 email. I will ask management about the difference between the operational limits shown in our email response and the MW output levels shown in the August 24 Yorktown Run Time report for the July runs.

Thanks,

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

---

**From:** Batra, Rakesh [mailto:[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)]

**Sent:** Wednesday, October 25, 2017 3:53 PM

**To:** Michael Regulinski (Services - 6)

**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III



**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
For some reason the below email from September 5, 2017, was not responded.  
Could you please provide/clarify the definition of operational limit?

Thanks,  
Rakesh

**From:** Batra, Rakesh

**Sent:** Tuesday, September 05, 2017 11:40 AM

**To:** 'Michael Regulinski' <[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)>

**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; 'craig.glazer@pjm.com' <[craig.glazer@pjm.com](mailto:craig.glazer@pjm.com)>; McGlynn, Paul <[Paul.McGlynn@pjm.com](mailto:Paul.McGlynn@pjm.com)>; Bresler, Frederick S. (Stu) III <[Stu.Bresler@pjm.com](mailto:Stu.Bresler@pjm.com)>

**Subject:** RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Could you please clarify the definition of operational limit?

Thanks,  
Rakesh

**From:** Michael Regulinski [<mailto:michael.regulinski@dominionenergy.com>]

**Sent:** Tuesday, September 05, 2017 11:04 AM

**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>

**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; 'craig.glazer@pjm.com' <[craig.glazer@pjm.com](mailto:craig.glazer@pjm.com)>; McGlynn, Paul <[Paul.McGlynn@pjm.com](mailto:Paul.McGlynn@pjm.com)>; Bresler, Frederick S. (Stu) III <[Stu.Bresler@pjm.com](mailto:Stu.Bresler@pjm.com)>

**Subject:** FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Rakesh, here is the information you requested regarding Yorktown Units 1 and 2.  
Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVar	65.0	81.0
Leading MVar	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski  
Managing General Counsel  
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teline: 738-2794  
P: (804) 819-2794  
C: (b) (6)

[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)



**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]  
**Sent:** Thursday, August 24, 2017 11:28 AM  
**To:** Pincus, Steven; Michael Regullinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.  
**Cc:** Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III  
**Subject:** [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching  
PJM /Dominion:  
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?  
Thanks,  
Rakesh

---

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**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Rosenbaum, Matthew; Jereza, Catherine; Mills, Brian  
**Subject:** 202(c) order on rehearing draft summary of findings  
**Date:** Monday, October 30, 2017 5:28:57 PM  
**Attachments:** DRAFT Summary of Findings Order No. 202-18-1 2017-10-30 445pm.docx  
**Importance:** High

---

Hello. The most recent draft summary of findings is attached and reflects feedback we received from Matt and Rakesh in response to questions. As always, please review the entire document for accuracy. (b) (5)

Thank you,  
Kathy

Katherine (Kathy) Konieczny  
Acting Assistant General Counsel for Electricity and Fossil Energy  
Forrestal 6D-033  
(202) 586-0503  
Katherine.Konieczny@hq.doc.gov



**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Drake, Christopher  
**Cc:** Bittner, Kathy (CONTR); Jereza, Catherine; Rosenbaum, Matthew  
**Subject:** RE: Rehearing Order  
**Date:** Monday, October 30, 2017 5:30:28 PM

---

Rakesh, DOJ and OE were provided with the latest draft today, and EPA received the excerpt that concerns that agency, and I expect to receive rolling comments. (b) (5)

**From:** Batra, Rakesh  
**Sent:** Monday, October 30, 2017 11:43 AM  
**To:** Konieczny, Katherine ; Drake, Christopher ; King-Gilmore, Christy  
**Cc:** Bittner, Kathy (CONTR) ; Jereza, Catherine ; Rosenbaum, Matthew  
**Subject:** Rehearing Order  
Could you please update the status of the Siera Club Rehearing order?  
When can we expect the final draft?  
I need to update Kathy Bittner.  
Thanks,  
Rakesh



**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Rosenbaum, Matthew  
**Cc:** Drake, Christopher  
**Subject:** RE: 202(c)  
**Date:** Tuesday, October 31, 2017 12:40:08 PM

---

PRIVILEGED - ATTORNEY CLIENT - ATTORNEY WORK-PRODUCT

Great! We'll swing by at 1:30. (b) (5)

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Tuesday, October 31, 2017 12:31 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** RE: 202(c)

Sure, you can stop by any time. (b) (6)

-----Original Message-----

**From:** Konieczny, Katherine  
**Sent:** Tuesday, October 31, 2017 11:50 AM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** 202(c)

Do you have time early this afternoon to discuss another technical question that have come up?

Thanks,  
Kathy

Katherine (Kathy) Konieczny  
Acting Assistant General Counsel for Electricity and Fossil Energy  
Forrestal 6D-033  
(202) 586-0503  
Katherine.Konieczny@hq.doe.gov



**From:** Michael Regulinski  
**To:** Batra, Rakesh  
**Subject:** Yorktown Unit 3  
**Date:** Wednesday, November 01, 2017 5:18:23 PM

---

We are gathering the data you requested and expect to get it to you COB Thursday.

Sent from my iPhone

Please excuse weird auto corrections



**From:** Michael Regulinski  
**To:** [Batra, Rakesh](#)  
**Subject:** Re: Yorktown 3 data  
**Date:** Thursday, November 02, 2017 10:18:06 AM

---

Should get it to you by noon.

Sent from my iPhone  
Please excuse weird auto corrections

On Nov 1, 2017, at 5:02 PM, Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)> wrote:

COB Thursday will not work. Need it before noon.  
Thanks

---

**From:** Michael Regulinski <[happypop9000@gmail.com](mailto:happypop9000@gmail.com)>  
**Date:** Wednesday, Nov 01, 2017, 4:44 PM  
**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>  
**Cc:** Steven R. Pincus <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>  
**Subject:** Yorktown 3 data

Rakesh, the engineers are digging up the data you requested. Our ETA is Thursday COB. Thanks  
Mike

Sent from my iPhone  
Please excuse weird auto corrections



**From:** Drake, Christopher  
**To:** Batra, Rakesh  
**Subject:** E-mails for the Summary of Findings  
**Date:** Thursday, November 02, 2017 10:54:09 AM  
**Importance:** High

---

Rakesh,

We're collecting the supporting documents for the Summary of Findings to go with the 202(c) order. Could you please save the following emails as pdfs and send them to me?

- Email from S. Pincus to R. Batra (Oct. 23, 2017)
- Email from M. Regulinski to R. Batra (Sept. 5, 2017)
- Email from M. Regulinski to R. Batra (Oct. 27, 2017)

(b) (5)

Also, if you could share the draft action memo with us as soon as you can, that would be great!

Thanks for all your help & talk to you soon

Chris Drake

Attorney-Adviser

U.S. Department of Energy, Office of General Counsel

Office of Electricity & Fossil Energy (GC-76)

Forrestal North, Room 6B-256

Tel. 202.586.2919

Christopher.Drake@hq.doe.gov



**From:** Michael Regulinski  
**To:** Batra, Rakesh  
**Cc:** Pincus, Steven; Sharon L. Burr; Rick R Linker; Miranda R Yost; Mohammed Alfayyoumi; Mike Barmer  
**Subject:** DOE Informal Question  
**Date:** Thursday, November 02, 2017 11:01:41 AM  
**Attachments:** YT3 Days of Operation 2014 2016.xlsx

---

Rakesh, here is the information you requested Tuesday night over the phone regarding Yorktown Unit 3 operations. The following chart reflects Unit 3 operation presented in the same manner we provided the information for Units 1 and 2.

	Yorktown 3
Name plate (kVA)	980,000
Min Real Output (MW)	300.0
Max Real Output (MW)	789.0
Lagging MVar	300.0
Leading MVar	-180.0
Ramp up/down (MW/Min)	5.0
Operational Limits (MW)	789.0

Attached are YT 3 days of operations from 2014 thru 2016. We rounded to full days because that is what our records contain.

The Top 5 reasons for Yorktown 3 reliability concerns are as follow.

1. Structural duct work and dampers repairs
2. LP Turbine inspections/repairs
3. Waterbox repairs
4. Turbine valve work/repairs
5. Various Boiler tube leaks

Please call my cell if you need additional information (b) (6)

Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

---

**CONFIDENTIALITY NOTICE:** This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.







### Yorktown-3 : Days of Operation

**01/2014 - 12/2016**

Yorktown-3 : 01/2014 - 12/2016 : Total Run Times

Start Date	End Date	Duration (Days)
1/6/2014	1/9/2014	3
1/20/2014	1/22/2014	2
1/23/2014	1/24/2014	1
1/27/2014	1/31/2014	4
8/20/2014	8/23/2014	3
8/25/2014	8/27/2014	2
1/1/2015	1/1/2015	0
1/7/2015	1/9/2015	2
2/2/2015	2/5/2015	3
2/14/2015	2/21/2015	7
6/14/2015	6/16/2015	2
7/19/2015	7/21/2015	2
7/26/2015	7/30/2015	4
8/3/2015	8/7/2015	4
12/14/2015	12/15/2015	1
1/12/2016	1/14/2016	2
2/11/2016	2/15/2016	4
6/2/2016	6/4/2016	2
7/23/2016	7/26/2016	3
8/30/2016	9/1/2016	1
11/30/2016	12/2/2016	2
		54



**From:** [Drake, Christopher](#)  
**To:** [Batra, Rakesh](#)  
**Subject:** RE: DOE Informal Question  
**Date:** Thursday, November 02, 2017 11:17:03 AM

---

Great – thanks for this, Rakesh. And can you please send me this e-mail as a pdf, along with the other three e-mails (Sept. 5, Oct. 23, Oct. 27)?

**From:** Batra, Rakesh

**Sent:** Thursday, November 02, 2017 11:15 AM

**To:** Konieczny, Katherine ; Drake, Christopher ; Rosenbaum, Matthew ; Mills, Brian

**Subject:** FW: DOE Informal Question

Additional information about Yorktown Unit #3. In the past 3 years they ran Unit #3 for only 54 days.

**From:** Michael Regulinski [<mailto:michael.regulinski@dominionenergy.com>]

**Sent:** Thursday, November 02, 2017 11:01 AM

**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>

**Cc:** Pincus, Steven <[Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)>; Sharon L. Burr

<[sharon.l.burr@dominionenergy.com](mailto:sharon.l.burr@dominionenergy.com)>; Rick R Linker <[rick.r.linker@dominionenergy.com](mailto:rick.r.linker@dominionenergy.com)>; Miranda

R Yost <[Miranda.R.Yost@dominionenergy.com](mailto:Miranda.R.Yost@dominionenergy.com)>; Mohammed Alfayyumi

<[mohammed.alfayyumi@dominionenergy.com](mailto:mohammed.alfayyumi@dominionenergy.com)>; Mike Barmer

<[mike.barmer@dominionenergy.com](mailto:mike.barmer@dominionenergy.com)>

**Subject:** DOE Informal Question

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	Yorktown 3
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4. Turbine valve work/repairs
5. Various Boiler tube leaks

Please call my cell if you need additional information (b) (6)

Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.



tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)

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**From:** [Drake, Christopher](#)  
**To:** [Batra, Rakesh](#)  
**Subject:** RE: E-mails for the Summary of Findings  
**Date:** Thursday, November 02, 2017 11:28:04 AM

---

Excellent – thank you! Exactly what we’re looking for

---

**From:** Batra, Rakesh  
**Sent:** Thursday, November 02, 2017 11:26 AM  
**To:** Drake, Christopher <Christopher.Drake@hq.doe.gov>  
**Subject:** RE: E-mails for the Summary of Findings

<< File: RE\_ Information request PJM and Dominion Responses Oct 23.pdf >> << File: FW\_ Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching Sept 5.pdf >> << File: RE\_ Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching Oct 27.pdf >>

---

**From:** Drake, Christopher  
**Sent:** Thursday, November 02, 2017 10:54 AM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Subject:** E-mails for the Summary of Findings  
**Importance:** High

Rakesh,

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Also, if you could share the draft action memo with us as soon as you can, that would be great!

Thanks for all your help & talk to you soon

Chris Drake



Attorney-Adviser

U.S. Department of Energy, Office of General Counsel

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Forrestal North, Room 6B-256

Tel. 202.586.2919

[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)



**From:** Konieczny, Katherine  
**To:** Batra, Rakesh; Drake, Christopher; Rosenbaum, Matthew; Mills, Brian  
**Cc:** Jereza, Catherine  
**Subject:** RE: 202 (C) Rehearing Request Order  
**Date:** Thursday, November 02, 2017 2:30:17 PM  
**Attachments:** Compare order 202-18-1.docx  
Compare Summary of Findings.docx  
DRAFT Order 202-18-1 2017-11-1.docx  
DRAFT Summary of Findings Order No. 202-18-1 2017-11-2 2pm CLEAN.docx  
**Importance:** High

---

The latest drafts of both Order No. 202-18-1 and the Summary of Findings are attached. (Compared to the versions we emailed you on Monday) Please let us know if you have any concerns/questions/edits. (b) (5)

-----Original Message-----

**From:** Konieczny, Katherine  
**Sent:** Thursday, November 02, 2017 2:13 PM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** RE: 202 (C) Rehearing Request Order

(b) (5) and I'll have a new draft to you in the next few minutes for your review. (b) (5)  
Should I send the final to Katie and Kathy B when it's ready? Who has the action memo?

-----Original Message-----

**From:** Batra, Rakesh  
**Sent:** Thursday, November 02, 2017 2:11 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** 202 (C) Rehearing Request Order

Kathy & Chris,

Matt and I stopped by your offices couple of times today. (b) (6)

(b) (5) If there is anything we can help you with before we leave, please let us know.

Thanks,  
Rakesh Batra  
202-586-1283



**From:** Jereza, Catherine  
**To:** Bittner, Kathy (CONTR)  
**Cc:** Konieczny, Katherine; Drake, Christopher; Batra, Rakesh; Rosenbaum, Matthew  
**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
**Date:** Monday, November 06, 2017 3:36:29 PM  
**Attachments:** Signed Order 202-18-1.pdf

---

Hi Kathy – do you have the electronic version that includes John Lucas’ edits? Can you send so we can make sure the right version goes out.

Once we have that, I’ll be sending the email out below.

Thanks!

Katie

From: Jereza, Catherine

To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org

Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

Subject: DOE Order 202-18-1

Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

---

**From:** Bittner, Kathy (CONTR)

**Sent:** Monday, November 06, 2017 3:07 PM

**To:** Jereza, Catherine

**Cc:** Rosenbaum, Matthew

**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

---

**From:** Bittner, Kathy (CONTR)

**Sent:** Friday, November 03, 2017 3:31 PM

**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>

**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary now.

Have a great weekend.



Kathy Bittner  
Correspondence Specialist  
ICF, Contractor for U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Phone: (202) 287-5613  
Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

---

**From:** Jereza, Catherine

**Sent:** Friday, November 03, 2017 12:35 PM

**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>

**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie





**Department of Energy**  
Washington, DC 20585


**Order No. 202-18-1**

Order No. 202-17-4, dated September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2, only for reliability purposes and under strict conditions, through December 13, 2017. I issued that Order by my authority under section 202(e) of the Federal Power Act (FPA), 16 U.S.C. § 824a(c). On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of Order No. 202-17-4, pursuant to FPA section 313(a), 16 U.S.C. § 8251(a). On October 20, the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM) filed a motion for leave to answer and answer to Sierra Club's petition, including a point of order wherein Dominion sought clarification that it is a party of right.

Sierra Club's motion to intervene is hereby granted. The Department takes no position, however, on whether Sierra Club is an "aggrieved" party for purposes of FPA section 313. The Dominion and PJM motion for leave to answer is granted, and the answer is accepted. Dominion is recognized as a party to this proceeding.

As explained in the accompanying Summary of Findings, incorporated here by reference, Sierra Club's petition for rehearing is denied.

Issued in Washington, D.C. this 6th day of November, 2017.

  
Rick Perry  
Secretary of Energy



**From:** [Bittner, Kathy \(CONTR\)](#)  
**To:** [Jereza, Catherine](#)  
**Cc:** [Konieczny, Katherine](#); [Drake, Christopher](#); [Batra, Rakesh](#); [Rosenbaum, Matthew](#)  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
**Date:** Monday, November 06, 2017 3:38:50 PM  
**Attachments:** [Summary of Findings Order No. 202-18-1 2017-11-3 930am.docx](#)

---

Sure, here it is.

**From:** Jereza, Catherine  
**Sent:** Monday, November 06, 2017 3:36 PM  
**To:** Bittner, Kathy (CONTR)  
**Cc:** Konieczny, Katherine ; Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew  
**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

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ICF, Contractor for U.S. Department of Energy

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**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

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Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

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Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

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**Sent:** Friday, November 03, 2017 12:35 PM

**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>

**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

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Cheers

Katie



## Summary of Findings

### Department of Energy Order No. 202-18-1

November 6, 2017

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes,” to issue an order “requir[ing] . . . such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1). If the order “may result in a conflict with [an] environmental law or regulation,” then the Secretary must “ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent with any applicable . . . environmental law or regulation and minimizes any adverse environmental impacts.” *Id.* § 824a(c)(2). Orders issued under FPA section 202(c) “that may result in a conflict with [an] environmental law or regulation” expire 90 days after they are issued, but the Secretary “may renew or reissue such order[s] . . . for subsequent periods, not to exceed 90 days for each period, as [the Secretary] determines necessary to meet the emergency and serve the public interest.” *Id.* § 824a(c)(4)(A).

Order No. 202-17-4 (the September Order), issued on September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2 pursuant to section 202(c), for reliability purposes only and under strict conditions, through December 13, 2017. On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of the September Order pursuant to FPA section 313(a), 16 U.S.C. § 825l(a).<sup>1</sup> *Sierra Club’s Motion Petition for Rehearing, and Motion to Intervene* (Oct. 6, 2017) (Petition). On October 20, 2017, the Department of Energy (DOE or Department) received an answer to Sierra Club’s petition from the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM). On October 23, 2017, PJM responded to a list of questions from the Department’s Office of Electricity Delivery and Energy Reliability, and further clarifications from PJM and Dominion are noted below.

---

<sup>1</sup> Issuance of today’s Order falls within the timeframe provided under FPA section 313(a). See 16 U.S.C. § 825l(a) (“Unless the [Secretary] acts upon [an] application for rehearing within thirty days after it is filed, such application may be deemed to have been denied.”); 10 C.F.R. § 205.5(a)(1); see also *Kan. Cities v. FERC*, 723 F.2d 82, 85 n.2 (D.C. Cir. 1983) (affirming the Federal Energy Regulatory Commission (FERC) regulatory interpretation of a section 313(a) deadline extension to fall on a business day).



## Summary of Findings for Department of Energy Order No. 202-18-1

For the reasons discussed in this Summary of Findings, and as reflected in Order No. 202-18-1, Sierra Club's petition for rehearing is denied.

Sierra Club raises two categories of objections to the Department's compliance with FPA section 202(c):

- (1) The Department's failure to (a) properly consult with EPA under Section 202(c) and to (b) add further measures to reduce the Yorktown Units' hours of operation and emissions; and
- (2) The Department's failure to properly assess the impacts of its action under the National Environmental Policy Act and its reliance on an inapplicable categorical exclusion.

The Department's objective was, and remains, to minimize the use of either unit, in light of environmental considerations, without compromising or jeopardizing the reliability of the power grid in the North Hampton Roads area. To accomplish this, the Department must balance competing challenges to arrive at a solution that "in [the Secretary's] judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c)(1).

### **The Department Complied with Section 202(c) of the Federal Power Act**

A key component of the Sierra Club's first objection is its claim that DOE did not fulfill the statute's consultation requirement. The Sierra Club, however, misreads section 202(c), arguing for a scope and procedural complexity of consultation that is not found in the statute. In renewing or reissuing certain orders under section 202(c), the statute requires DOE to "consult with the primary Federal agency with expertise in the environmental interest protected by [a conflicting] law or regulation" and to "include in any such renewed or reissued order such conditions as such Federal agency determines necessary to minimize any adverse environmental impacts to the extent practicable." 16 U.S.C. § 824a(c)(4)(B).

In this case, DOE consulted with the relevant federal agency, the U.S. Environmental Protection Agency (EPA). Following consultation, EPA concurred in writing with the Department's approach in the September Order. EPA did not recommend or propose further conditions on matters within its purview in the September Order or indicate that additional or different consultation with EPA was desired. The FPA does not specify procedures or substantive requirements for consultation under this provision. Rather, it requires only that a consultation take place and, if the consulted agency (here, EPA) proposes additional conditions in a renewal order, that such conditions be included in the order unless DOE "determines that such condition would prevent the order from adequately addressing the emergency" and publicly explains its determination. Here, EPA recommended no additional conditions. Rather, EPA expressly acknowledged the



## Summary of Findings for Department of Energy Order No. 202-18-1

September Order's consistency with EPA's April 2016 Administrative Compliance Order (ACO) and expressed no concerns about DOE's approach.

Indeed, the statute expressly recognizes that, as occurred here, the consulted agency might not propose further conditions: "[t]he conditions, *if any*, submitted by such Federal agency shall be made available to the public." *Id.* (emphasis added). Thus, Sierra Club incorrectly reads the statute as requiring the consulted agency (*i.e.*, EPA) to verify, independently, DOE's compliance with FPA section 202(c)(2). The statute contains no such requirement or mechanism for such independent verification. Rather, FPA section 202(c)(4) provides the consulted agency the opportunity to propose conditions in a DOE order that would either supplement or substitute for conditions to be ordered by DOE and as to which DOE has discretion to accept or reject, subject to the requirement to explain its reasoning. Sierra Club incorrectly seeks to transform this consultation process from one in which an agency with specific environmental expertise advises DOE on conditions to one in which the consulted agency exercises an oversight role and must approve DOE's actions. However, Sierra Club offers no support for that interpretation, and DOE finds nothing in the text of the statute to support such an interpretation. DOE's consultation with EPA prior to issuing the September Order satisfied the statutory requirements.<sup>2</sup>

Next, Sierra Club suggests that alternative sources of power can and should replace Yorktown Units 1 and 2 generation during transmission outages or high load conditions, either of which could trigger the Remedial Action Scheme (RAS) that automatically sheds roughly 950 MW of load to prevent voltage collapse. *See Summary of Findings for Department of Energy Order No. 202-17-4*, at 4 (Sept. 14, 2017) (Summary of Findings). Notably, the Sierra Club acknowledges that the challenged September Order requires PJM and Dominion to exhaust available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Units 1 or 2. Petition at 9-10. This reduces Sierra Club's objection to the fact that the September Order does not require the consideration of additional resources that may become available "over the course of the emergency." *Id.* at 10. In other words, Sierra Club concedes that the Department correctly evaluated available alternatives but quibbles that the Department should have analyzed speculative new resources as well.

While the Department does not oppose the use of alternative power sources generally, it explained in the September Order that, in its judgment and based on the record before it, the available alternative power cannot fully compensate for the loss of Yorktown Units 1 and 2 generation, and would therefore not suffice to preserve the reliability of the North Hampton Roads grid:

---

<sup>2</sup> Informal communications with EPA staff have continued. Despite learning of the Sierra Club's arguments in the October 6 petition, EPA personnel have not expressed an intent to add conditions.



## Summary of Findings for Department of Energy Order No. 202-18-1

The only sufficient alternative to the RAS and its resulting outages for up to approximately 150,000 customers is the emergency operation of Yorktown Units 1 and 2. The demand response available to PJM is a small fraction of the load threshold and is “not sufficient to ensure reliable service.” Likewise, Dominion has limited demand-side management and curtailment capabilities, insufficient for reliability purposes even when fully deployed.

*Id.* at 6 (citations omitted).

Both the Department’s June 2017 and September 2017 orders specifically require the minimum use of Yorktown Units 1 and 2 that preserves system reliability—and, in fact, PJM and Dominion emphasize that “[h]istory and future projections show that the need [for operation of Yorktown Units 1 and 2] is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month [transmission upgrade] period.” *Motion for Leave to Answer and Answer of Virginia Electric & Power Company and PJM Interconnection LLC*, at 10 (Oct. 20, 2017) (Answer). Under section 202(c), the Department is authorized “to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” The requirement is conjunctive, not disjunctive. The Department acknowledges that minimizing the use of Yorktown Units 1 and 2, both of which were planned to be retired by now, is in the public interest, along with exploring alternative power sources. In the Secretary’s judgment, however, reliance on alternative power sources alone, such as those Sierra Club suggests, does not best meet the emergency. The public interest is not served by the RAS being needlessly activated and power being shut off to 150,000 customers—and hundreds of thousands of people—which would be the result of insufficient generation during a transmission outage.

In assessing the need for an emergency order under section 202(c), the Department independently evaluates the situation, but it is not required to determine every reasonable alternative. The statute requires only that the Secretary use his or her best judgment to meet the emergency and serve the public interest. That judgment includes the determination of which factors play a central role in a given emergency and the weight to assign each such factor. In this situation, the expertise of the applicant was an important factor. The Department received an application from PJM, which is not only the regional transmission organization responsible for managing a transmission system across twelve states and the District of Columbia, but also holds the highest-level, federally-regulated reliability responsibilities for the system it manages. Summary of Findings at 2. The Department’s independent analysis of PJM’s request took into account the extensive earlier reviews conducted by PJM in evaluating the proposed solution. *Id.* at 2-3. Although DOE is not obligated to analyze the viability of alternative resources (especially at the unit level, which is an unbounded analysis if DOE were to consider potential new resources), the



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following analysis broadly explains the rationale behind dispatching Yorktown Units 1 and 2 instead of other categories of alternative resources.

The alternatives Sierra Club presents for consideration (namely expanded demand response and distributed generation resources as well as battery storage) do not best meet the emergency because, unlike Yorktown Units 1 and 2, they cannot guarantee enough dispatchable power, both real<sup>3</sup> and reactive,<sup>4</sup> during excessive load periods or transmission outages. Reliance on alternatives to Yorktown Units 1 and 2 would require both real and reactive power supply, and achieving that over the anticipated remaining emergency timeframe<sup>5</sup> is infeasible due to a combination of technical and market challenges. The precise amount of dispatchable power needed to replace Yorktown Units 1 and 2 varies based on a combination of the system configuration (e.g., whether any other facilities are offline) and load. The Department's analysis reasonably focused on the worst-case scenario, which would draw on the full output of both Units 1 and 2, or 270 MW (net), and also have the option of providing reactive power support. The combined capacity of all currently-available alternatives does not reach 270 MW (net), and the Department explains below why those alternative resources, even if combined, are unlikely to become sufficient substitutes over the remaining emergency timeframe.

First, relying on available demand response is inadequate because it cannot provide sufficient reactive power support.<sup>6</sup> Demand response is only a load reduction measure. Both real power and reactive power are critical to maintaining system reliability, and while demand response decreases both real power demand and reactive power demand, it does not generate power. The available demand response resources are few in number, and there is no indication in the record that market incentives could substantially and rapidly increase demand response over the anticipated emergency timeframe. PJM reports that it

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<sup>3</sup> The North American Electric Reliability Corporation (NERC) Glossary, as adopted by the NERC Board of Trustees, defines "real power" as "[t]he portion of electricity that supplies energy to the Load" — that is, to customers. Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), [http://www.nerc.com/files/glossary\\_of\\_terms.pdf](http://www.nerc.com/files/glossary_of_terms.pdf).

<sup>4</sup> The NERC Glossary defines "reactive power" as "[t]he portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive Power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive Power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is usually expressed in kilovars (kvar) or megavars (Mvar)." *Id.*

<sup>5</sup> This analysis applies to both the 90-day term of Order No. 202-17-4 and the estimated remaining time for the Skiffes Creek Transmission Project. The latter is expected to take 18-20 months. Four months have passed since construction commenced.

<sup>6</sup> When load is reduced, the requisite reactive power required by the system is proportionally reduced. DOE does not treat that as reactive power support akin to the ancillary services provided by Yorktown Units 1 and 2, however, because demand response merely removes the need for some reactive power support rather than actively providing it.



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has approximately 26 MW of demand response available during the 2017/2018 Planning Year, but just 0.7 MW of demand response resources are available year-round. Email from S. Pincus to R. Batra (Oct. 23, 2017), included in the docket of this Order.<sup>7</sup> Additionally, Dominion reports that it has roughly 20 MW of Demand Side Management capability—specifically, remote air conditioning control, limited to a total of 120 hours and 30 days during the summer months. *Id.* Dominion also can curtail a large industrial customer by an average of 75 MW for transmission emergencies, but this curtailment is available only when the customer's load is about 99 MW, so that the reduced customer load is not more than 24 MW. *Id.* Even during the summer of 2017, the customer's load averaged 40 MW, well below the threshold for load curtailment. *Id.* Demand response is a voluntary program that even participating customers can decline to follow (at risk of contractual penalties). As such, PJM or Dominion cannot guarantee load reduction from demand response. Even if demand response were compulsory, it cannot provide reactive power benefits equivalent to generation units. For all of these reasons, reliance on demand response is not a workable solution to the reliability concerns at issue.

Second, distributed energy resources, such as rooftop solar and other behind-the-meter generation, also are insufficient to address the reliability concerns. Like demand response, behind-the-meter generation reduces the load a utility serves. But unlike demand response, distributed energy resources have the potential of adding supply to the system. This benefit is reduced, however, by two issues: (1) distributed energy resources are not assured because their availability depends on variable factors, such as solar radiation; and (2) reactive power support from distributed energy resources cannot be aggregated in a linear fashion, making its benefits too geographically constrained to be useful across the same area served by Yorktown Units 1 and 2. Distributed energy resources or behind-the-meter programs are also voluntary. Hence, customers cannot be compelled to install or use behind-the-meter generation. Current available resources are insufficient,<sup>8</sup> and fundamental questions about how to fairly compensate owners likely preclude substantial shifts in this resource over the anticipated emergency timeframe.<sup>9</sup> Thus, relying on

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<sup>7</sup> The annual availability schedule is as follows: 0.7 MW from January through April, 11 MW in May, 25.5 MW from June through September, 11 MW in October, and 0.7 MW from November to December.

<sup>8</sup> PJM's forecast for distributed solar generation across the entire Dominion zone—not the smaller North Hampton Roads area—is 130MW (real power) at typical peaking conditions. Email from S. Pincus to R. Batra (Oct. 23, 2017). In weather patterns unfavorable to solar power generation, that number could drop to zero.

<sup>9</sup> Earlier this year, FERC outlined the challenges in pricing sales of distributed energy back to the grid. See Policy Statement, Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Rate Recovery, 158 FERC ¶ 61,051 (Jan. 19, 2017). An "electric storage resource" is "a resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid." *Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,107 at P 6 n.14 (Feb. 1, 2017). That definition "include[s] all types of electric storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, pumped-hydro), or whether located on the interstate grid or on a distribution system." *Id.*



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variable or intermittent resources for reactive power is not a solution to reliability concerns.

Finally, rechargeable battery storage, even if technically feasible,<sup>10</sup> is not a viable solution because it would require a substantial financial outlay for long-life equipment to address a short-term problem that could be resolved in as little as 14 months when the Skiffes Creek Transmission Project comes online. To serve as an alternative to Yorktown Units 1 and 2, PJM and Dominion would have to procure enough battery storage to be on par with those units.<sup>11</sup> Insufficient battery storage would lead to the RAS being triggered, automatically shedding 950 MW of load. Suggesting that battery storage is a workable solution, Sierra Club's expert noted three recent examples: (1) a 20 MW, four-hour battery storage system; (2) a pair of four-MWh batteries, and (3) a 100 MW rechargeable storage system. *See* Sierra Club Exhibit F at 18-19. In this case, Dominion would need to procure approximately 270 MW (net) of battery storage to replace the output of Yorktown Units 1 and 2 adequately and reliably. Doing so would come at a high cost to ratepayers without a proven benefit if the full 270 MW is not required during the anticipated emergency timeframe.

Under Sierra Club's first example, Southern California Edison (SCE) recently procured four hours of 20 MW (80MWh) energy storage from Canada's AltaGas Ltd.<sup>12</sup> The Pomona Energy Storage Facility, built to house the batteries and inverters, was completed in under four months and came online in December 2016.<sup>13</sup> The project, with its 80 MWh of discharge capacity, cost between \$40 million and \$45 million.<sup>14</sup> Scaling those figures up for a rough estimate, a similar storage facility capable of 270 MW (net) output for four hours could cost approximately \$540 million to \$600 million. The cost of Tesla's project in South Australia, noted by Sierra Club as its third example, is estimated to be \$576 to \$730 per kilowatt,<sup>15</sup> which roughly equates to between \$622 million and \$788

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<sup>10</sup> Unlike demand response or behind-the-meter generation, PJM and Dominion could deploy battery storage that could be available without contingencies, and some portion of direct-current battery output could be converted for reactive power support.

<sup>11</sup> Although it would be theoretically possible to deploy a combination of the alternative resources proposed by Sierra Club such that the required amount of battery storage could be reduced, it was the Department's judgment that, due to the minimal amount of demand response and behind-the-meter resources available, modeling combination scenarios would not serve to further inform DOE's review.

<sup>12</sup> <https://www.altagas.ca/sites/default/files/2017-02/Pomona%20Energy%20Storage%20brochure.pdf>.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*; <http://www.reuters.com/article/idUSFWN1AX0G9>.

<sup>15</sup> <https://www.reuters.com/article/us-australia-power-tesla/teslas-big-battery-races-to-keep-south-australias-lights-on-idUSKCN1C40DD>. The costs described in Australian dollars (\$750 to \$950) were converted to U.S. dollars in this document using a market-closing exchange rate of 0.7687 U.S. dollars to 1 Australian dollar, as reported by the Wall Street Journal on Monday, October 30, 2017. *See* [http://www.wsj.com/mdc/public/page/2\\_3021-forex.html](http://www.wsj.com/mdc/public/page/2_3021-forex.html).



million for the 270 MW, four-hour storage system contemplated earlier. Costs are highly variable and depend on procurement contract negotiations. But they would run into the hundreds of millions of dollars, and ratepayers would absorb a significant portion of those charges.<sup>16</sup> The examples Sierra Club's expert mentions address different situations, as it appears the battery storage systems were purchased consistent with overall system planning goals, as opposed to the situation here that would add a costly new resource to an existing system as a short-term fix while longer-term solutions were constructed. In short, none of the examples presented is applicable to the reliability situation faced here. While battery storage has improved markedly, it is not a workable solution to the substantial reliability concerns the Department has addressed in this particular geographic area.

Using Yorktown Unit 3 to alleviate the emergency is PJM and Dominion's only remaining option, and its operating constraints prevent it from addressing the emergency. Unit 3 is oil-fired and has a maximum real output of 789 MW, but it is unreliable and can only operate at an 8 percent capacity factor (63 MW) to comply with EPA's Mercury and Air Toxics Standards (MATS). PJM Application (June 13, 2017) at 18; Email from S. Pincus to R. Batra (Oct. 23, 2017); Email from M. Regulinski to R. Batra (Nov. 2, 2017), included in the docket of this Order. Dominion has stated at least five significant reasons for its concerns about Unit 3: structural duct work and damper repairs, turbine inspections and repairs, waterbox repairs, turbine valve work and repairs, and various boiler tube leaks. *See id.* Apart from power output that is only a fraction of what Units 1 and 2 can produce, Unit 3 is so unreliable that Dominion has only operated it for 54 days in the past three (3) years. *See Yorktown Unit 3 Days of Operation 2014-2016*, included in the docket of this Order. Unit 3 is not a viable alternative due to limitations that prevent PJM from relying on that unit consistently and for an extended period of time.

Unlike the Sierra Club's proposed alternatives, either individually or in the aggregate, the Yorktown coal units can resolve the reliability emergency. They provide both real power and reactive power support, without contingencies, and at the levels required. Without the Yorktown Units, PJM cannot ensure the reliability of the grid in the North Hampton Roads area throughout the transmission upgrade schedule. For that reason, the authorization of the Yorktown Units to operate for reliability purposes only, despite being less than ideal, remains the *best* available option to meet the identified emergency.

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<sup>16</sup> For example, although SCE and Tesla did not disclose the contract price for Tesla's storage units at SCE's Mira Loma substation, SCE filed a rate case with the California Public Utilities Commission on March 30, 2017, seeking in part to recover costs of those facilities from its ratepayers. *See Application of Southern California Edison Company (U 338-E) for Recovery of Aliso Canyon Utility Owned Energy Storage Costs* (Mar. 30, 2017), [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/\\$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf).



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Sierra Club's reference to the 2005 Mirant 202(c) order, for the proposition that the Department can and should require ordered entities to obtain alternative energy sources during the period of an emergency, is misplaced. Specifically, Sierra Club cites the following discussion in Order No. 202-05-3 (the Mirant Order): "DOE expects that the DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs." Order No. 202-05-3, at 9 (Dec. 20, 2005), [https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant\\_122005\\_2.pdf](https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant_122005_2.pdf). However, at least two key differences distinguish the September Order from the Mirant Order. First, Dominion already has a demand response program. As explained above, Dominion's demand response program cannot ensure reliability on the North Hampton Roads power grid during a transmission outage. Second, the Mirant Order urged the D.C. Public Service Commission to "take all reasonable actions." Again as explained above, even if each of Sierra Club's alternatives were viewed as reasonable, the alternatives are inadequate to solve the reliability emergency on their own.

A determination not to order Yorktown Units 1 and 2 to operate could result in severe collateral effects—namely, load shedding across the North Hampton Roads area. Power would be shut off to thousands of customers, which could impact over half a million people.<sup>17</sup> Because the RAS is activated when load reaches a critical threshold, whether that threshold is triggered by a transmission outage or by heightened power demand, the full load is shed immediately. That is, the shedding is not piecemeal—950 MW of power immediately go off-line upon activation of the RAS. Without sufficient backup generation, the risk of load shedding pursuant to the RAS is far greater. While the September Order is directed at avoiding the emergency presented by that loss of power, it also takes into account the Department's independent analysis of the reliability situation in the North Hampton Roads area and an evaluation of proposed alternatives.<sup>18</sup> Without an emergency order the region may suffer heavy load shedding, and the Department has determined to protect the public interest by exercising its authority to avoid the loss of power that otherwise would result.

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<sup>17</sup> See Summary of Findings at 4 (noting that the North Hampton Roads area population exceeded 660,000 in July 2016, according to U.S. Census estimates).

<sup>18</sup> In light of a permanent solution coming online soon, this analysis did not model all permutations of alternative resources; instead, in the Department's judgment, an examination of whether there were any realistic substitute resources during the anticipated emergency timeframe was conducted.



**The Department Complied With Its Environmental Review Obligations**

Sierra Club also contends that the Department did not adequately assess the impact of its Order under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions before taking action. The regulations of the Council on Environmental Quality (CEQ) implementing NEPA, codified at 40 C.F.R. parts 1500–1508, establish three levels of review for proposed actions subject to NEPA: categorical exclusion (CX) determinations,<sup>19</sup> environmental assessments (EA),<sup>20</sup> and environmental impact statements (EIS).<sup>21</sup> In this instance, Sierra Club highlights the issuance of the September Order as the underlying action subject to NEPA review. The Department acted consistently with NEPA by issuing a CX determination, which is based on its assessment of the proposed action and determination that it fits within a category of actions previously established by the Department and found not to have a significant impact, individually or cumulatively, on the environment. *See* Record of Categorical Exclusion Determination issued on September 11, 2017.

Specifically, the proposed action fits within the CX for power marketing services and power management activities. That CX covers “[p]ower marketing services and power management activities (including, but not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities), provided that the operations of generating projects would remain within normal operating limits.” *See* 10 C.F.R. Part 1021, Subpart D, Appendix B, B4.4.<sup>22</sup> The September Order requires Dominion to “operate Units 1 and/or 2 of the Yorktown Power Station as directed by PJM only as needed to address reliability issues.” September Order at 2. Such operation fits squarely within the power management activities of load shaping and balancing that are included in B4.4.<sup>23</sup> Sierra Club does not dispute that the September Order authorizes covered power management activities. Instead, Sierra Club argues that the authorized operations would not be “within normal operating limits.” Petition at 7.

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<sup>19</sup> A CX is a category of actions that a federal agency has determined do not individually or cumulatively have a significant impact on the environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. *See* 40 C.F.R. § 1508.4.

<sup>20</sup> An EA is a relatively brief analysis conducted to determine whether a proposed action may have a significant impact on the environment and, thus, whether an EIS is required. *See id.* § 1508.9.

<sup>21</sup> An EIS is a detailed analysis of the potential environmental impacts of a proposed action (and alternatives) that may have a significant impact on the environment. *See id.* § 1508.11.

<sup>22</sup> This CX was revised during a 2011 DOE rulemaking, in part, to make clear that it applies to power management activities, including those evaluated or overseen, even if not directly undertaken, by the Department. *See* 76 Fed. Reg. 214, 227 (Jan. 3, 2011).

<sup>23</sup> “Balancing” was added to “load shaping” in B4.4 during the rulemaking to make clear that the CX is intended to cover load balancing which “helps ensure system reliability by managing energy resources to be equal with load.” 76 Fed. Reg. 63,764, 63,777 (Oct. 13, 2011).



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Sierra Club's argument rests on its mistaken interpretation that "normal operating limits" refers to compliance with environmental standards, including MATS. *Id.* Rather, "normal operating limits" refers to elements of power generation capacity, not permit or other regulatory limits.

First, the Sierra Club's interpretation fails to account for the words "would remain" that precede "within normal operating limits" in the CX. "Would remain" provides important context, demonstrating that the CX contemplates the proposed operation being evaluated against the current operation to see if the operations will be consistent, *i.e.*, "would remain within normal operating limits." Sierra Club's interpretation would require one to evaluate the proposed operation against other operating units, reading the words "would remain" out of the regulation. As such, Sierra Club's interpretation of the CX is erroneous and conflicts with the regulatory text.

Second, Sierra Club offers no authority in support of its interpretation. As explained below, the CX refers to "normal operating limits," which DOE interprets to refer to elements of power generation capacity, not permit or other regulatory limits, such as Clean Air Act emissions limits as Sierra Club contends. The text of the regulation and industry practice both amply support the Department's interpretation of its own CX. Moreover, the Supreme Court has explained that "[w]hen an agency interprets its own regulation, the Court, as a general rule, defers to it unless that interpretation is plainly erroneous or inconsistent with the regulation." *Decker v. Nw. Envtl. Def. Ctr.*, 568 U.S. 597, 613 (2013) (internal quotation marks omitted) (citing *Chase Bank USA, N.A. v. McCoy*, 562 U.S. 195, 208 (2011) (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997))).

In its CX determinations for these orders, the Department interpreted the language "would remain within normal operating limits" to mean that operations would remain within normal *operational* capacities and limits. *See* CX determinations for the June and September Orders; *see also* CX Determination for Order No. 202-17-1 (Categorical Exclusion Determination, Grand River Dam Authority).<sup>24</sup> The operational capacities for Units 1 and 2 are reflected in their maximum real outputs of 159 MW and 164 MW

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<sup>24</sup> The Department's establishment of other CXs related to electrical power and transmission supports its interpretation that normal operating limits relates to operational capacity. For example, for some actions, the Department has established corollary categories of actions that typically require a CX, EA, or EIS. *See, e.g.*, the CX at B4.1, which covers certain electric power acquisitions involving "existing generation resources operating within their normal operating limits." 10 C.F.R. Part 1021, Subpart D, Appendix B. The EA corollary for this CX is C7, which applies, in part, to "changes in the normal operating limits of generation resources equal to or less than 50 average megawatts," and the D7 EIS corollary, which applies to "changes in the normal operating limits of generation resources greater than 50 average megawatts." *Id.* It is clear from the focus on MWs in these provisions that the term "normal operating limits" refers to operational capacity.



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respectively, with a net output<sup>25</sup> from each unit of 135 MW. *See* PJM Application (June 13, 2017) at 5; Email from M. Regulinski to R. Batra (Sept. 5, 2017); Email from M. Regulinski to R. Batra (Oct. 27, 2017). The maximum real outputs represent the high end of the operating parameters for these units. The objective is to operate the units consistent with these outputs; such operation is consistent with the prescribed normal operating limits.<sup>26</sup> The Department's determination that the units will remain within normal operating limits is supported by the record. As evidenced by the operational data provided to date for operations under the June and September Orders, these units have remained within their maximum real output limits. *See* Renewal Application, Attachment 1; Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachments 1, 3, and 5. Pursuant to the September Order, these units will remain within their operational capacities and are expected to operate below their capacity given the restrictions provided in the September Order (*i.e.*, operate as directed by PJM only as needed to address reliability issues and exhaust all reasonably and practically available resources prior to operating). In fact, the units are anticipated to run only 81 days over the 18-20 month construction period, Answer at 10, which is 81 out of 540-600 days or 13-15% of the time.

Third, DOE's interpretation is consistent with the common understanding of the term "operating limits" in the technical community and in the context of the power generation facilities at issue. For example, NERC defines "equipment rating" to mean "[t]he maximum and minimum voltage, current, frequency, real and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner." Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), [http://www.nerc.com/files/glossary\\_of\\_terms.pdf](http://www.nerc.com/files/glossary_of_terms.pdf). NERC defines "normal rating" as "[t]he rating as defined by the equipment owner that specifies the level of electrical loading, usually expressed in megawatts (MW) or other appropriate units that a system, facility, or element can support or withstand through the daily demand cycles without loss of equipment life." *Id.*

In the alternative, even under Sierra Club's proffered interpretation that the phrase "normal operating limits" includes considerations beyond operational capacity, such as Clean Air Act emissions requirements, the September Order and operation of Units 1 and 2 pursuant to that Order would meet the parameters of B4.4. Sierra Club argues that the operation of these units will not be within normal operating limits because such operation would not be in compliance with MATS. *See* Petition at 7. However, as Sierra Club acknowledges, these units are proposed for deactivation because they are not, and never

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<sup>25</sup> The net MW output is "the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units." Email from M. Regulinski to R. Batra (Oct. 27, 2017).

<sup>26</sup> While it is possible for a unit to exceed its maximum real outputs, doing so is ill-advised, as it could result in overheating, equipment damage, inefficiencies, and a shortened operational life of the unit.



have been, in compliance with MATS. *See id.* Accepting *arguendo* Sierra Club's interpretation that the phrase "normal operating limits" under which Units 1 and 2 "would remain" refers to how the units have operated in relation to MATS compliance, then it follows that "normal operation" of these particular units is non-compliance. In other words, under this reading of the regulation, "normal operating limits" and MATS non-compliance would be co-extensive.

The MATS took effect in April 2012. *See* 77 Fed. Reg. 9304 (Feb. 16, 2012). Section 112(i)(3)(A) of the Clean Air Act allowed existing power plants three years—*i.e.*, until April 2015—to comply with MATS. *See* 42 U.S.C. § 7412(i)(3)(A). During these three years, Yorktown Units 1 and 2 were not operating in compliance with MATS. Section 112(i)(3)(B) of the Clean Air Act further allowed for a one-year extension of compliance until April 2016. *See id.* § 7412(i)(3)(B). Dominion sought and received this compliance extension from the Virginia Department of Environmental Quality (VADEQ). Thereafter, Dominion sought and received an ACO from EPA. *See* AED-CAA-113(a)-2016-0005. The ACO allowed the Yorktown Units 1 and 2 to operate, under certain conditions, through April 15, 2017. *See id.* at 8. In the five and a half years since the MATS took effect, the Yorktown units have never been equipped to comply with MATS. Nevertheless, they have operated, and for five of those years, they were operating pursuant to allowances in the Clean Air Act. The Department's Orders allow for continued conditional operation, incorporating conditions contained in EPA's ACO, consistent with how these units have operated (as relates to MATS) for years.

In addition to the applicability of the B4.4 CX, Sierra Club argues that the June Order and the September Order are major federal actions significantly affecting the environment. *See* Petition at 6. Sierra Club points to the mercury and hydrogen chloride (HCl) per-pound emissions estimates (3.3068 lbs./TBtu and 0.0478 lbs./MMBtu, respectively)<sup>27</sup> that were provided by PJM in its Renewal Application and notes that these estimated emissions exceed the MATS for these two pollutants. *See id.*; Renewal Application, Attachment 2. First, these per pound emissions estimates are based on emissions factors, and the projected monthly emissions provided by PJM are based on conservative operational assumptions and are intended to be bounding. For example, PJM's monthly emissions estimates are based on its expectations that there will be a total of 81 days over load thresholds that will necessitate operation of Units 1 and/or 2. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachment 4. The monthly emissions estimates "are based on full operating days" and conservatively assume an operating day consists of "24 hours of operation, 16 hours at low load and 8 hours at maximum load." Report on Yorktown Units 1 and 2 Operations

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<sup>27</sup> PJM's per pound emissions estimates for mercury and HCl are based on emissions factors from AP-42, Fifth Edition. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Mercury emissions were based on AP-42, Table 1.1-18 and HCl was based on AP-42, Table 1.1-15. *See id.*



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Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Second, in order to minimize emissions, the Secretary included conditions in the September Order to minimize the impacts from operation of Yorktown Units 1 and 2. As such, there is no indication that the emissions estimated by PJM will necessarily be reached.

Moreover, DOE consulted with EPA about the September Order, and EPA had the opportunity to suggest additional conditions it determined “necessary to minimize any adverse environmental impacts to the extent practicable.” 16 U.S.C. § 824a(c)(4)(B). EPA did not suggest additional conditions or indicate concerns with DOE’s approach. *See* Email from L. Starfield to P. Hoffman (Sept. 11, 2017), available at <https://energy.gov/oe/downloads/additional-documents-order-no-202-17-4>.

Nevertheless, there is a reasonable expectation that some emissions could exceed the MATS. Yorktown Units 1 and 2 are not equipped to be MATS compliant. As all parties have acknowledged, that is the reason Dominion seeks to retire the units and why it sought and was granted compliance extensions from VADEQ and EPA, and in part, why the September Order<sup>28</sup> was requested.

After stating the per pound emissions estimates, Sierra Club then cites to PJM’s estimates for total emissions of mercury and HCl over the projected 18-20 month period and concludes, without any supporting analysis related to the operation of Units 1 and 2, that “[t]hose emissions will have a significant impact.” Petition at 6. DOE assessed the constrained operation allowed under the September Order and determined that the constraints were consistent with those previously imposed by EPA in the ACO, and that such operations would not result in significant impacts. Sierra Club cites to selective parts of EPA’s May 2011 proposed rulemaking related to National Emissions Standards for Hazardous Air Pollutants and Standards of Performance which are inapposite to the Order,<sup>29</sup> and states that mercury is hazardous even in small quantities and that HCl can cause acute and chronic health harms. *See id.* Also, as an attachment to its Petition, Sierra Club includes a 2011 EPA memorandum related to a non-Hg case study of chronic

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<sup>28</sup> “[A]ction taken by a party, that is necessary to comply with an order issued under this subsection” which “results in non-compliance with . . . any Federal, State, or local environmental law or regulation . . . shall not be considered a violation . . . or subject such party to any requirement, civil or criminal liability, or a citizen suit.” 16 U.S.C. § 824a(c)(3).

<sup>29</sup> For example, Sierra Club notes a dose of .0001mg/kg-day for mercury and states that exposures above that level raise health concerns. *See* Petition at 6. This dose is the “reference dose” (RfD) for methyl mercury, which was described during the rulemaking as “the amount of a chemical which, when ingested daily over a lifetime, is anticipated to be without adverse health effects to humans, including sensitive subpopulations.” 76 Fed. Reg. 24,976, 24,982 (May 3, 2011). The rulemaking further described the RfD as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure . . . that is likely to be without an appreciable risk of deleterious effects during a lifetime.” *Id.* at 25,000. This scenario plainly does not reflect expected exposure based on operations under the September Order. The operations of Units 1 & 2 will be limited to generation needed to meet grid reliability, and will be of a limited 18-20 month duration.



## Summary of Findings for Department of Energy Order No. 202-18-1

inhalation risks that does not correlate to the emissions or potential exposures related to the September Order.<sup>30</sup> *See* Petition at 6; EPA Memorandum (Mar. 16, 2011) attached to Petition. Yet, Sierra Club has provided no applicable data or analysis in support of this claim, and therefore has failed to demonstrate significant impacts from the subject Order.

Finally, Sierra Club notes that CEQ has NEPA procedures that are applicable in emergency situations. *See* Petition at 8. The Department agrees that § 1506.11 provides that “[w]here emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements.” As explained above, the Department concluded that issuance of the September Order would not result in significant environmental impacts. Therefore, alternative arrangements and consultation were not required. In this case, the Department has chosen to proceed consistently with one of the established levels of NEPA review: issuance of a CX determination.<sup>31</sup>

Sierra Club concludes by stating that the extended nature of the situation provides time for DOE to conduct additional NEPA review and to inform subsequent renewals. *See* Petition at 9-10. As detailed above, the Department has complied with NEPA by issuing a CX determination. Nevertheless, the Department will evaluate any future renewal applications from PJM and assess the appropriate level of NEPA review based on the facts presented at that time.

### **Conclusion**

When emergency situations arise, it is critical to have the tools to respond to them quickly, efficiently, and effectively. The Department issued the September Order because, in the Secretary’s judgment, its provisions would best meet the emergency and serve the public interest in the North Hampton Roads area. The operative interest is in keeping the lights on, allowing the PJM-mandated transmission upgrades to continue, while to the maximum extent practicable remaining consistent with environmental law and minimizing the adverse effects of power generation on human health and the environment. The September Order is tailored to accomplish those goals. Accordingly, Sierra Club’s petition for rehearing is denied.

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<sup>30</sup> Sierra Club cites this inapposite study because it references the Yorktown facility. The study was actually based on 5-year concentrations for pollutants that were calculated based on information from 2005-2009, and the maximum individual risk for each facility was calculated based on “risk associated with a continuous lifetime (24 hours per day, 7 days per week, and 52 weeks per year for a 70-year period) exposure to the maximum concentration.” EPA Memorandum at 12.

<sup>31</sup> Sierra Club incorporates by reference Section IV.C of its original Petition. *See* Petition at 8 n.5. The substantive arguments raised therein have been addressed above.



**From:** [Konieczny, Katherine](#)  
**To:** [Bittner, Kathy \(CONTR\)](#); [Jereza, Catherine](#)  
**Cc:** [Drake, Christopher](#); [Batra, Rakesh](#); [Rosenbaum, Matthew](#)  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
**Date:** Monday, November 06, 2017 3:50:55 PM  
**Attachments:** [Summary of Findings Order No. 202-18-1.pdf](#)

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Looks like the right one. Attached as pdf with name omitting the date/time. I also added one email address to the draft notification email below. Kevin Finto is outside counsel to Dominion and he signed Dominion's last filing.

-Kathy K

**From:** Bittner, Kathy (CONTR)  
**Sent:** Monday, November 06, 2017 3:39 PM  
**To:** Jereza, Catherine  
**Cc:** Konieczny, Katherine ; Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
 Sure, here it is.

**From:** Jereza, Catherine  
**Sent:** Monday, November 06, 2017 3:36 PM  
**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>  
**Cc:** Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>; Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>; Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>; Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>  
**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
 Hi Kathy – do you have the electronic version that includes John Lucas' edits? Can you send so we can make sure the right version goes out.  
 Once we have that, I'll be sending the email out below.

Thanks!

Katie

**From:** Jereza, Catherine  
**To:** [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com); [craig.glazer@pjm.com](mailto:craig.glazer@pjm.com); [michael.regullinski@dominionenergy.com](mailto:michael.regullinski@dominionenergy.com); [sanjay.narayan@sierraclub.org](mailto:sanjay.narayan@sierraclub.org); [casey.roberts@sierraclub.org](mailto:casey.roberts@sierraclub.org); [bridget.lee@sierraclub.org](mailto:bridget.lee@sierraclub.org); [kfinto@hunton.com](mailto:kfinto@hunton.com)

**Cc:** Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

**Subject:** DOE Order 202-18-1

Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

**From:** Bittner, Kathy (CONTR)  
**Sent:** Monday, November 06, 2017 3:07 PM  
**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>  
**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
 Hi Katie and Matt,



Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

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**From:** Bittner, Kathy (CONTR)

**Sent:** Friday, November 03, 2017 3:31 PM

**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>

**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary now.

Have a great weekend.

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

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**From:** Jereza, Catherine

**Sent:** Friday, November 03, 2017 12:35 PM

**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>

**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie



## Summary of Findings

### Department of Energy Order No. 202-18-1

November 6, 2017

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes,” to issue an order “requir[ing] . . . such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1). If the order “may result in a conflict with [an] environmental law or regulation,” then the Secretary must “ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent with any applicable . . . environmental law or regulation and minimizes any adverse environmental impacts.” *Id.* § 824a(c)(2). Orders issued under FPA section 202(c) “that may result in a conflict with [an] environmental law or regulation” expire 90 days after they are issued, but the Secretary “may renew or reissue such order[s] . . . for subsequent periods, not to exceed 90 days for each period, as [the Secretary] determines necessary to meet the emergency and serve the public interest.” *Id.* § 824a(c)(4)(A).

Order No. 202-17-4 (the September Order), issued on September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2 pursuant to section 202(c), for reliability purposes only and under strict conditions, through December 13, 2017. On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of the September Order pursuant to FPA section 313(a), 16 U.S.C. § 825l(a).<sup>1</sup> *Sierra Club’s Motion Petition for Rehearing, and Motion to Intervene* (Oct. 6, 2017) (Petition). On October 20, 2017, the Department of Energy (DOE or Department) received an answer to Sierra Club’s petition from the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM). On October 23, 2017, PJM responded to a list of questions from the Department’s Office of Electricity Delivery and Energy Reliability, and further clarifications from PJM and Dominion are noted below.

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<sup>1</sup> Issuance of today’s Order falls within the timeframe provided under FPA section 313(a). *See* 16 U.S.C. § 825l(a) (“Unless the [Secretary] acts upon [an] application for rehearing within thirty days after it is filed, such application may be deemed to have been denied.”); 10 C.F.R. § 205.5(a)(1); *see also Kan. Cities v. FERC*, 723 F.2d 82, 85 n.2 (D.C. Cir. 1983) (affirming the Federal Energy Regulatory Commission (FERC) regulatory interpretation of a section 313(a) deadline extension to fall on a business day).



## Summary of Findings for Department of Energy Order No. 202-18-1

For the reasons discussed in this Summary of Findings, and as reflected in Order No. 202-18-1, Sierra Club's petition for rehearing is denied.

Sierra Club raises two categories of objections to the Department's compliance with FPA section 202(c):

- (1) The Department's failure to (a) properly consult with EPA under Section 202(c) and to (b) add further measures to reduce the Yorktown Units' hours of operation and emissions; and
- (2) The Department's failure to properly assess the impacts of its action under the National Environmental Policy Act and its reliance on an inapplicable categorical exclusion.

The Department's objective was, and remains, to minimize the use of either unit, in light of environmental considerations, without compromising or jeopardizing the reliability of the power grid in the North Hampton Roads area. To accomplish this, the Department must balance competing challenges to arrive at a solution that "in [the Secretary's] judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c)(1).

### **The Department Complied with Section 202(c) of the Federal Power Act**

A key component of the Sierra Club's first objection is its claim that DOE did not fulfill the statute's consultation requirement. The Sierra Club, however, misreads section 202(c), arguing for a scope and procedural complexity of consultation that is not found in the statute. In renewing or reissuing certain orders under section 202(c), the statute requires DOE to "consult with the primary Federal agency with expertise in the environmental interest protected by [a conflicting] law or regulation" and to "include in any such renewed or reissued order such conditions as such Federal agency determines necessary to minimize any adverse environmental impacts to the extent practicable." 16 U.S.C. § 824a(c)(4)(B).

In this case, DOE consulted with the relevant federal agency, the U.S. Environmental Protection Agency (EPA). Following consultation, EPA concurred in writing with the Department's approach in the September Order. EPA did not recommend or propose further conditions on matters within its purview in the September Order or indicate that additional or different consultation with EPA was desired. The FPA does not specify procedures or substantive requirements for consultation under this provision. Rather, it requires only that a consultation take place and, if the consulted agency (here, EPA) proposes additional conditions in a renewal order, that such conditions be included in the order unless DOE "determines that such condition would prevent the order from adequately addressing the emergency" and publicly explains its determination. Here, EPA recommended no additional conditions. Rather, EPA expressly acknowledged the



September Order's consistency with EPA's April 2016 Administrative Compliance Order (ACO) and expressed no concerns about DOE's approach.

Indeed, the statute expressly recognizes that, as occurred here, the consulted agency might not propose further conditions: "[t]he conditions, *if any*, submitted by such Federal agency shall be made available to the public." *Id.* (emphasis added). Thus, Sierra Club incorrectly reads the statute as requiring the consulted agency (*i.e.*, EPA) to verify, independently, DOE's compliance with FPA section 202(c)(2). The statute contains no such requirement or mechanism for such independent verification. Rather, FPA section 202(c)(4) provides the consulted agency the opportunity to propose conditions in a DOE order that would either supplement or substitute for conditions to be ordered by DOE and as to which DOE has discretion to accept or reject, subject to the requirement to explain its reasoning. Sierra Club incorrectly seeks to transform this consultation process from one in which an agency with specific environmental expertise advises DOE on conditions to one in which the consulted agency exercises an oversight role and must approve DOE's actions. However, Sierra Club offers no support for that interpretation, and DOE finds nothing in the text of the statute to support such an interpretation. DOE's consultation with EPA prior to issuing the September Order satisfied the statutory requirements.<sup>2</sup>

Next, Sierra Club suggests that alternative sources of power can and should replace Yorktown Units 1 and 2 generation during transmission outages or high load conditions, either of which could trigger the Remedial Action Scheme (RAS) that automatically sheds roughly 950 MW of load to prevent voltage collapse. *See Summary of Findings for Department of Energy Order No. 202-17-4*, at 4 (Sept. 14, 2017) (Summary of Findings). Notably, the Sierra Club acknowledges that the challenged September Order requires PJM and Dominion to exhaust available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Units 1 or 2. Petition at 9-10. This reduces Sierra Club's objection to the fact that the September Order does not require the consideration of additional resources that may become available "over the course of the emergency." *Id.* at 10. In other words, Sierra Club concedes that the Department correctly evaluated available alternatives but quibbles that the Department should have analyzed speculative new resources as well.

While the Department does not oppose the use of alternative power sources generally, it explained in the September Order that, in its judgment and based on the record before it, the available alternative power cannot fully compensate for the loss of Yorktown Units 1 and 2 generation, and would therefore not suffice to preserve the reliability of the North Hampton Roads grid:

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<sup>2</sup> Informal communications with EPA staff have continued. Despite learning of the Sierra Club's arguments in the October 6 petition, EPA personnel have not expressed an intent to add conditions.



## Summary of Findings for Department of Energy Order No. 202-18-1

The only sufficient alternative to the RAS and its resulting outages for up to approximately 150,000 customers is the emergency operation of Yorktown Units 1 and 2. The demand response available to PJM is a small fraction of the load threshold and is “not sufficient to ensure reliable service.” Likewise, Dominion has limited demand-side management and curtailment capabilities, insufficient for reliability purposes even when fully deployed.

*Id.* at 6 (citations omitted).

Both the Department’s June 2017 and September 2017 orders specifically require the minimum use of Yorktown Units 1 and 2 that preserves system reliability—and, in fact, PJM and Dominion emphasize that “[h]istory and future projections show that the need [for operation of Yorktown Units 1 and 2] is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month [transmission upgrade] period.” *Motion for Leave to Answer and Answer of Virginia Electric & Power Company and PJM Interconnection LLC*, at 10 (Oct. 20, 2017) (Answer). Under section 202(c), the Department is authorized “to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” The requirement is conjunctive, not disjunctive. The Department acknowledges that minimizing the use of Yorktown Units 1 and 2, both of which were planned to be retired by now, is in the public interest, along with exploring alternative power sources. In the Secretary’s judgment, however, reliance on alternative power sources alone, such as those Sierra Club suggests, does not best meet the emergency. The public interest is not served by the RAS being needlessly activated and power being shut off to 150,000 customers—and hundreds of thousands of people—which would be the result of insufficient generation during a transmission outage.

In assessing the need for an emergency order under section 202(c), the Department independently evaluates the situation, but it is not required to determine every reasonable alternative. The statute requires only that the Secretary use his or her best judgment to meet the emergency and serve the public interest. That judgment includes the determination of which factors play a central role in a given emergency and the weight to assign each such factor. In this situation, the expertise of the applicant was an important factor. The Department received an application from PJM, which is not only the regional transmission organization responsible for managing a transmission system across twelve states and the District of Columbia, but also holds the highest-level, federally-regulated reliability responsibilities for the system it manages. Summary of Findings at 2. The Department’s independent analysis of PJM’s request took into account the extensive earlier reviews conducted by PJM in evaluating the proposed solution. *Id.* at 2-3. Although DOE is not obligated to analyze the viability of alternative resources (especially at the unit level, which is an unbounded analysis if DOE were to consider potential new resources), the



following analysis broadly explains the rationale behind dispatching Yorktown Units 1 and 2 instead of other categories of alternative resources.

The alternatives Sierra Club presents for consideration (namely expanded demand response and distributed generation resources as well as battery storage) do not best meet the emergency because, unlike Yorktown Units 1 and 2, they cannot guarantee enough dispatchable power, both real<sup>3</sup> and reactive,<sup>4</sup> during excessive load periods or transmission outages. Reliance on alternatives to Yorktown Units 1 and 2 would require both real and reactive power supply, and achieving that over the anticipated remaining emergency timeframe<sup>5</sup> is infeasible due to a combination of technical and market challenges. The precise amount of dispatchable power needed to replace Yorktown Units 1 and 2 varies based on a combination of the system configuration (e.g., whether any other facilities are offline) and load. The Department's analysis reasonably focused on the worst-case scenario, which would draw on the full output of both Units 1 and 2, or 270 MW (net), and also have the option of providing reactive power support. The combined capacity of all currently-available alternatives does not reach 270 MW (net), and the Department explains below why those alternative resources, even if combined, are unlikely to become sufficient substitutes over the remaining emergency timeframe.

First, relying on available demand response is inadequate because it cannot provide sufficient reactive power support.<sup>6</sup> Demand response is only a load reduction measure. Both real power and reactive power are critical to maintaining system reliability, and while demand response decreases both real power demand and reactive power demand, it does not generate power. The available demand response resources are few in number, and there is no indication in the record that market incentives could substantially and rapidly increase demand response over the anticipated emergency timeframe. PJM reports that it

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<sup>3</sup> The North American Electric Reliability Corporation (NERC) Glossary, as adopted by the NERC Board of Trustees, defines "real power" as "[t]he portion of electricity that supplies energy to the Load" — that is, to customers. Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), [http://www.nerc.com/files/glossary\\_of\\_terms.pdf](http://www.nerc.com/files/glossary_of_terms.pdf).

<sup>4</sup> The NERC Glossary defines "reactive power" as "[t]he portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive Power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive Power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is usually expressed in kilovars (kvar) or megavars (Mvar)." *Id.*

<sup>5</sup> This analysis applies to both the 90-day term of Order No. 202-17-4 and the estimated remaining time for the Skiffes Creek Transmission Project. The latter is expected to take 18-20 months. Four months have passed since construction commenced.

<sup>6</sup> When load is reduced, the requisite reactive power required by the system is proportionally reduced. DOE does not treat that as reactive power support akin to the ancillary services provided by Yorktown Units 1 and 2, however, because demand response merely removes the need for some reactive power support rather than actively providing it.



has approximately 26 MW of demand response available during the 2017/2018 Planning Year, but just 0.7 MW of demand response resources are available year-round. Email from S. Pincus to R. Batra (Oct. 23, 2017), included in the docket of this Order.<sup>7</sup> Additionally, Dominion reports that it has roughly 20 MW of Demand Side Management capability—specifically, remote air conditioning control, limited to a total of 120 hours and 30 days during the summer months. *Id.* Dominion also can curtail a large industrial customer by an average of 75 MW for transmission emergencies, but this curtailment is available only when the customer's load is about 99 MW, so that the reduced customer load is not more than 24 MW. *Id.* Even during the summer of 2017, the customer's load averaged 40 MW, well below the threshold for load curtailment. *Id.* Demand response is a voluntary program that even participating customers can decline to follow (at risk of contractual penalties). As such, PJM or Dominion cannot guarantee load reduction from demand response. Even if demand response were compulsory, it cannot provide reactive power benefits equivalent to generation units. For all of these reasons, reliance on demand response is not a workable solution to the reliability concerns at issue.

Second, distributed energy resources, such as rooftop solar and other behind-the-meter generation, also are insufficient to address the reliability concerns. Like demand response, behind-the-meter generation reduces the load a utility serves. But unlike demand response, distributed energy resources have the potential of adding supply to the system. This benefit is reduced, however, by two issues: (1) distributed energy resources are not assured because their availability depends on variable factors, such as solar radiation; and (2) reactive power support from distributed energy resources cannot be aggregated in a linear fashion, making its benefits too geographically constrained to be useful across the same area served by Yorktown Units 1 and 2. Distributed energy resources or behind-the-meter programs are also voluntary. Hence, customers cannot be compelled to install or use behind-the-meter generation. Current available resources are insufficient,<sup>8</sup> and fundamental questions about how to fairly compensate owners likely preclude substantial shifts in this resource over the anticipated emergency timeframe.<sup>9</sup> Thus, relying on

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<sup>7</sup> The annual availability schedule is as follows: 0.7 MW from January through April, 11 MW in May, 25.5 MW from June through September, 11 MW in October, and 0.7 MW from November to December.

<sup>8</sup> PJM's forecast for distributed solar generation across the entire Dominion zone—not the smaller North Hampton Roads area—is 130MW (real power) at typical peaking conditions. Email from S. Pincus to R. Batra (Oct. 23, 2017). In weather patterns unfavorable to solar power generation, that number could drop to zero.

<sup>9</sup> Earlier this year, FERC outlined the challenges in pricing sales of distributed energy back to the grid. *See* Policy Statement, Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Rate Recovery, 158 FERC ¶ 61,051 (Jan. 19, 2017). An "electric storage resource" is "a resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid." *Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,107 at P 6 n.14 (Feb. 1, 2017). That definition "include[s] all types of electric storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, pumped-hydro), or whether located on the interstate grid or on a distribution system." *Id.*



variable or intermittent resources for reactive power is not a solution to reliability concerns.

Finally, rechargeable battery storage, even if technically feasible,<sup>10</sup> is not a viable solution because it would require a substantial financial outlay for long-life equipment to address a short-term problem that could be resolved in as little as 14 months when the Skiffes Creek Transmission Project comes online. To serve as an alternative to Yorktown Units 1 and 2, PJM and Dominion would have to procure enough battery storage to be on par with those units.<sup>11</sup> Insufficient battery storage would lead to the RAS being triggered, automatically shedding 950 MW of load. Suggesting that battery storage is a workable solution, Sierra Club's expert noted three recent examples: (1) a 20 MW, four-hour battery storage system; (2) a pair of four-MWh batteries, and (3) a 100 MW rechargeable storage system. *See* Sierra Club Exhibit F at 18-19. In this case, Dominion would need to procure approximately 270 MW (net) of battery storage to replace the output of Yorktown Units 1 and 2 adequately and reliably. Doing so would come at a high cost to ratepayers without a proven benefit if the full 270 MW is not required during the anticipated emergency timeframe.

Under Sierra Club's first example, Southern California Edison (SCE) recently procured four hours of 20 MW (80MWh) energy storage from Canada's AltaGas Ltd.<sup>12</sup> The Pomona Energy Storage Facility, built to house the batteries and inverters, was completed in under four months and came online in December 2016.<sup>13</sup> The project, with its 80 MWh of discharge capacity, cost between \$40 million and \$45 million.<sup>14</sup> Scaling those figures up for a rough estimate, a similar storage facility capable of 270 MW (net) output for four hours could cost approximately \$540 million to \$600 million. The cost of Tesla's project in South Australia, noted by Sierra Club as its third example, is estimated to be \$576 to \$730 per kilowatt,<sup>15</sup> which roughly equates to between \$622 million and \$788

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<sup>10</sup> Unlike demand response or behind-the-meter generation, PJM and Dominion could deploy battery storage that could be available without contingencies, and some portion of direct-current battery output could be converted for reactive power support.

<sup>11</sup> Although it would be theoretically possible to deploy a combination of the alternative resources proposed by Sierra Club such that the required amount of battery storage could be reduced, it was the Department's judgment that, due to the minimal amount of demand response and behind-the-meter resources available, modeling combination scenarios would not serve to further inform DOE's review.

<sup>12</sup> <https://www.altagas.ca/sites/default/files/2017-02/Pomona%20Energy%20Storage%20brochure.pdf>.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*; <http://www.reuters.com/article/idUSFWN1AX0G9>.

<sup>15</sup> <https://www.reuters.com/article/us-australia-power-tesla/teslas-big-battery-races-to-keep-south-australias-lights-on-idUSKCN1C40DD>. The costs described in Australian dollars (\$750 to \$950) were converted to U.S. dollars in this document using a market-closing exchange rate of 0.7687 U.S. dollars to 1 Australian dollar, as reported by the Wall Street Journal on Monday, October 30, 2017. *See* [http://www.wsj.com/mdc/public/page/2\\_3021-forex.html](http://www.wsj.com/mdc/public/page/2_3021-forex.html).



million for the 270 MW, four-hour storage system contemplated earlier. Costs are highly variable and depend on procurement contract negotiations. But they would run into the hundreds of millions of dollars, and ratepayers would absorb a significant portion of those charges.<sup>16</sup> The examples Sierra Club's expert mentions address different situations, as it appears the battery storage systems were purchased consistent with overall system planning goals, as opposed to the situation here that would add a costly new resource to an existing system as a short-term fix while longer-term solutions were constructed. In short, none of the examples presented is applicable to the reliability situation faced here. While battery storage has improved markedly, it is not a workable solution to the substantial reliability concerns the Department has addressed in this particular geographic area.

Using Yorktown Unit 3 to alleviate the emergency is PJM and Dominion's only remaining option, and its operating constraints prevent it from addressing the emergency. Unit 3 is oil-fired and has a maximum real output of 789 MW, but it is unreliable and can only operate at an 8 percent capacity factor (63 MW) to comply with EPA's Mercury and Air Toxics Standards (MATS). PJM Application (June 13, 2017) at 18; Email from S. Pincus to R. Batra (Oct. 23, 2017); Email from M. Regulinski to R. Batra (Nov. 2, 2017), included in the docket of this Order. Dominion has stated at least five significant reasons for its concerns about Unit 3: structural duct work and damper repairs, turbine inspections and repairs, waterbox repairs, turbine valve work and repairs, and various boiler tube leaks. *See id.* Apart from power output that is only a fraction of what Units 1 and 2 can produce, Unit 3 is so unreliable that Dominion has only operated it for 54 days in the past three (3) years. *See Yorktown Unit 3 Days of Operation 2014-2016*, included in the docket of this Order. Unit 3 is not a viable alternative due to limitations that prevent PJM from relying on that unit consistently and for an extended period of time.

Unlike the Sierra Club's proposed alternatives, either individually or in the aggregate, the Yorktown coal units can resolve the reliability emergency. They provide both real power and reactive power support, without contingencies, and at the levels required. Without the Yorktown Units, PJM cannot ensure the reliability of the grid in the North Hampton Roads area throughout the transmission upgrade schedule. For that reason, the authorization of the Yorktown Units to operate for reliability purposes only, despite being less than ideal, remains the *best* available option to meet the identified emergency.

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<sup>16</sup> For example, although SCE and Tesla did not disclose the contract price for Tesla's storage units at SCE's Mira Loma substation, SCE filed a rate case with the California Public Utilities Commission on March 30, 2017, seeking in part to recover costs of those facilities from its ratepayers. *See Application of Southern California Edison Company (U 338-E) for Recovery of Aliso Canyon Utility Owned Energy Storage Costs* (Mar. 30, 2017), [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/\\$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf).



## Summary of Findings for Department of Energy Order No. 202-18-1

Sierra Club's reference to the 2005 Mirant 202(c) order, for the proposition that the Department can and should require ordered entities to obtain alternative energy sources during the period of an emergency, is misplaced. Specifically, Sierra Club cites the following discussion in Order No. 202-05-3 (the Mirant Order): "DOE expects that the DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs." Order No. 202-05-3, at 9 (Dec. 20, 2005), [https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant\\_122005\\_2.pdf](https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant_122005_2.pdf). However, at least two key differences distinguish the September Order from the Mirant Order. First, Dominion already has a demand response program. As explained above, Dominion's demand response program cannot ensure reliability on the North Hampton Roads power grid during a transmission outage. Second, the Mirant Order urged the D.C. Public Service Commission to "take all reasonable actions." Again as explained above, even if each of Sierra Club's alternatives were viewed as reasonable, the alternatives are inadequate to solve the reliability emergency on their own.

A determination not to order Yorktown Units 1 and 2 to operate could result in severe collateral effects—namely, load shedding across the North Hampton Roads area. Power would be shut off to thousands of customers, which could impact over half a million people.<sup>17</sup> Because the RAS is activated when load reaches a critical threshold, whether that threshold is triggered by a transmission outage or by heightened power demand, the full load is shed immediately. That is, the shedding is not piecemeal—950 MW of power immediately go off-line upon activation of the RAS. Without sufficient backup generation, the risk of load shedding pursuant to the RAS is far greater. While the September Order is directed at avoiding the emergency presented by that loss of power, it also takes into account the Department's independent analysis of the reliability situation in the North Hampton Roads area and an evaluation of proposed alternatives.<sup>18</sup> Without an emergency order the region may suffer heavy load shedding, and the Department has determined to protect the public interest by exercising its authority to avoid the loss of power that otherwise would result.

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<sup>17</sup> See Summary of Findings at 4 (noting that the North Hampton Roads area population exceeded 660,000 in July 2016, according to U.S. Census estimates).

<sup>18</sup> In light of a permanent solution coming online soon, this analysis did not model all permutations of alternative resources; instead, in the Department's judgment, an examination of whether there were any realistic substitute resources during the anticipated emergency timeframe was conducted.



**The Department Complied With Its Environmental Review Obligations**

Sierra Club also contends that the Department did not adequately assess the impact of its Order under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions before taking action. The regulations of the Council on Environmental Quality (CEQ) implementing NEPA, codified at 40 C.F.R. parts 1500–1508, establish three levels of review for proposed actions subject to NEPA: categorical exclusion (CX) determinations,<sup>19</sup> environmental assessments (EA),<sup>20</sup> and environmental impact statements (EIS).<sup>21</sup> In this instance, Sierra Club highlights the issuance of the September Order as the underlying action subject to NEPA review. The Department acted consistently with NEPA by issuing a CX determination, which is based on its assessment of the proposed action and determination that it fits within a category of actions previously established by the Department and found not to have a significant impact, individually or cumulatively, on the environment. *See* Record of Categorical Exclusion Determination issued on September 11, 2017.

Specifically, the proposed action fits within the CX for power marketing services and power management activities. That CX covers “[p]ower marketing services and power management activities (including, but not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities), provided that the operations of generating projects would remain within normal operating limits.” *See* 10 C.F.R. Part 1021, Subpart D, Appendix B, B4.4.<sup>22</sup> The September Order requires Dominion to “operate Units 1 and/or 2 of the Yorktown Power Station as directed by PJM only as needed to address reliability issues.” September Order at 2. Such operation fits squarely within the power management activities of load shaping and balancing that are included in B4.4.<sup>23</sup> Sierra Club does not dispute that the September Order authorizes covered power management activities. Instead, Sierra Club argues that the authorized operations would not be “within normal operating limits.” Petition at 7.

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<sup>19</sup> A CX is a category of actions that a federal agency has determined do not individually or cumulatively have a significant impact on the environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. *See* 40 C.F.R. § 1508.4.

<sup>20</sup> An EA is a relatively brief analysis conducted to determine whether a proposed action may have a significant impact on the environment and, thus, whether an EIS is required. *See id.* § 1508.9.

<sup>21</sup> An EIS is a detailed analysis of the potential environmental impacts of a proposed action (and alternatives) that may have a significant impact on the environment. *See id.* § 1508.11.

<sup>22</sup> This CX was revised during a 2011 DOE rulemaking, in part, to make clear that it applies to power management activities, including those evaluated or overseen, even if not directly undertaken, by the Department. *See* 76 Fed. Reg. 214, 227 (Jan. 3, 2011).

<sup>23</sup> “Balancing” was added to “load shaping” in B4.4 during the rulemaking to make clear that the CX is intended to cover load balancing which “helps ensure system reliability by managing energy resources to be equal with load.” 76 Fed. Reg. 63,764, 63,777 (Oct. 13, 2011).



## Summary of Findings for Department of Energy Order No. 202-18-1

Sierra Club's argument rests on its mistaken interpretation that "normal operating limits" refers to compliance with environmental standards, including MATS. *Id.* Rather, "normal operating limits" refers to elements of power generation capacity, not permit or other regulatory limits.

First, the Sierra Club's interpretation fails to account for the words "would remain" that precede "within normal operating limits" in the CX. "Would remain" provides important context, demonstrating that the CX contemplates the proposed operation being evaluated against the current operation to see if the operations will be consistent, *i.e.*, "would remain within normal operating limits." Sierra Club's interpretation would require one to evaluate the proposed operation against other operating units, reading the words "would remain" out of the regulation. As such, Sierra Club's interpretation of the CX is erroneous and conflicts with the regulatory text.

Second, Sierra Club offers no authority in support of its interpretation. As explained below, the CX refers to "normal operating limits," which DOE interprets to refer to elements of power generation capacity, not permit or other regulatory limits, such as Clean Air Act emissions limits as Sierra Club contends. The text of the regulation and industry practice both amply support the Department's interpretation of its own CX. Moreover, the Supreme Court has explained that "[w]hen an agency interprets its own regulation, the Court, as a general rule, defers to it unless that interpretation is plainly erroneous or inconsistent with the regulation." *Decker v. Nw. Env'tl. Def. Ctr.*, 568 U.S. 597, 613 (2013) (internal quotation marks omitted) (citing *Chase Bank USA, N.A. v. McCoy*, 562 U.S. 195, 208 (2011) (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997))).

In its CX determinations for these orders, the Department interpreted the language "would remain within normal operating limits" to mean that operations would remain within normal *operational* capacities and limits. *See* CX determinations for the June and September Orders; *see also* CX Determination for Order No. 202-17-1 (Categorical Exclusion Determination, Grand River Dam Authority).<sup>24</sup> The operational capacities for Units 1 and 2 are reflected in their maximum real outputs of 159 MW and 164 MW

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<sup>24</sup> The Department's establishment of other CXs related to electrical power and transmission supports its interpretation that normal operating limits relates to operational capacity. For example, for some actions, the Department has established corollary categories of actions that typically require a CX, EA, or EIS. *See, e.g.*, the CX at B4.1, which covers certain electric power acquisitions involving "existing generation resources operating within their normal operating limits." 10 C.F.R. Part 1021, Subpart D, Appendix B. The EA corollary for this CX is C7, which applies, in part, to "changes in the normal operating limits of generation resources equal to or less than 50 average megawatts," and the D7 EIS corollary, which applies to "changes in the normal operating limits of generation resources greater than 50 average megawatts." *Id.* It is clear from the focus on MWs in these provisions that the term "normal operating limits" refers to operational capacity.



## Summary of Findings for Department of Energy Order No. 202-18-1

respectively, with a net output<sup>25</sup> from each unit of 135 MW. *See* PJM Application (June 13, 2017) at 5; Email from M. Regulinski to R. Batra (Sept. 5, 2017); Email from M. Regulinski to R. Batra (Oct. 27, 2017). The maximum real outputs represent the high end of the operating parameters for these units. The objective is to operate the units consistent with these outputs; such operation is consistent with the prescribed normal operating limits.<sup>26</sup> The Department's determination that the units will remain within normal operating limits is supported by the record. As evidenced by the operational data provided to date for operations under the June and September Orders, these units have remained within their maximum real output limits. *See* Renewal Application, Attachment 1; Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachments 1, 3, and 5. Pursuant to the September Order, these units will remain within their operational capacities and are expected to operate below their capacity given the restrictions provided in the September Order (*i.e.*, operate as directed by PJM only as needed to address reliability issues and exhaust all reasonably and practically available resources prior to operating). In fact, the units are anticipated to run only 81 days over the 18-20 month construction period, Answer at 10, which is 81 out of 540-600 days or 13-15% of the time.

Third, DOE's interpretation is consistent with the common understanding of the term "operating limits" in the technical community and in the context of the power generation facilities at issue. For example, NERC defines "equipment rating" to mean "[t]he maximum and minimum voltage, current, frequency, real and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner." Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), [http://www.nerc.com/files/glossary\\_of\\_terms.pdf](http://www.nerc.com/files/glossary_of_terms.pdf). NERC defines "normal rating" as "[t]he rating as defined by the equipment owner that specifies the level of electrical loading, usually expressed in megawatts (MW) or other appropriate units that a system, facility, or element can support or withstand through the daily demand cycles without loss of equipment life." *Id.*

In the alternative, even under Sierra Club's proffered interpretation that the phrase "normal operating limits" includes considerations beyond operational capacity, such as Clean Air Act emissions requirements, the September Order and operation of Units 1 and 2 pursuant to that Order would meet the parameters of B4.4. Sierra Club argues that the operation of these units will not be within normal operating limits because such operation would not be in compliance with MATS. *See* Petition at 7. However, as Sierra Club acknowledges, these units are proposed for deactivation because they are not, and never

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<sup>25</sup> The net MW output is "the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units." Email from M. Regulinski to R. Batra (Oct. 27, 2017).

<sup>26</sup> While it is possible for a unit to exceed its maximum real outputs, doing so is ill-advised, as it could result in overheating, equipment damage, inefficiencies, and a shortened operational life of the unit.



have been, in compliance with MATS. *See id.* Accepting *arguendo* Sierra Club's interpretation that the phrase "normal operating limits" under which Units 1 and 2 "would remain" refers to how the units have operated in relation to MATS compliance, then it follows that "normal operation" of these particular units is non-compliance. In other words, under this reading of the regulation, "normal operating limits" and MATS non-compliance would be co-extensive.

The MATS took effect in April 2012. *See* 77 Fed. Reg. 9304 (Feb. 16, 2012). Section 112(i)(3)(A) of the Clean Air Act allowed existing power plants three years—*i.e.*, until April 2015—to comply with MATS. *See* 42 U.S.C. § 7412(i)(3)(A). During these three years, Yorktown Units 1 and 2 were not operating in compliance with MATS. Section 112(i)(3)(B) of the Clean Air Act further allowed for a one-year extension of compliance until April 2016. *See id.* § 7412(i)(3)(B). Dominion sought and received this compliance extension from the Virginia Department of Environmental Quality (VADEQ). Thereafter, Dominion sought and received an ACO from EPA. *See* AED-CAA-113(a)-2016-0005. The ACO allowed the Yorktown Units 1 and 2 to operate, under certain conditions, through April 15, 2017. *See id.* at 8. In the five and a half years since the MATS took effect, the Yorktown units have never been equipped to comply with MATS. Nevertheless, they have operated, and for five of those years, they were operating pursuant to allowances in the Clean Air Act. The Department's Orders allow for continued conditional operation, incorporating conditions contained in EPA's ACO, consistent with how these units have operated (as relates to MATS) for years.

In addition to the applicability of the B4.4 CX, Sierra Club argues that the June Order and the September Order are major federal actions significantly affecting the environment. *See* Petition at 6. Sierra Club points to the mercury and hydrogen chloride (HCl) per-pound emissions estimates (3.3068 lbs./TBtu and 0.0478 lbs./MMBtu, respectively)<sup>27</sup> that were provided by PJM in its Renewal Application and notes that these estimated emissions exceed the MATS for these two pollutants. *See id.*; Renewal Application, Attachment 2. First, these per pound emissions estimates are based on emissions factors, and the projected monthly emissions provided by PJM are based on conservative operational assumptions and are intended to be bounding. For example, PJM's monthly emissions estimates are based on its expectations that there will be a total of 81 days over load thresholds that will necessitate operation of Units 1 and/or 2. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachment 4. The monthly emissions estimates "are based on full operating days" and conservatively assume an operating day consists of "24 hours of operation, 16 hours at low load and 8 hours at maximum load." Report on Yorktown Units 1 and 2 Operations

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<sup>27</sup> PJM's per pound emissions estimates for mercury and HCl are based on emissions factors from AP-42, Fifth Edition. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Mercury emissions were based on AP-42, Table 1.1-18 and HCl was based on AP-42, Table 1.1-15. *See id.*



## Summary of Findings for Department of Energy Order No. 202-18-1

Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Second, in order to minimize emissions, the Secretary included conditions in the September Order to minimize the impacts from operation of Yorktown Units 1 and 2. As such, there is no indication that the emissions estimated by PJM will necessarily be reached.

Moreover, DOE consulted with EPA about the September Order, and EPA had the opportunity to suggest additional conditions it determined “necessary to minimize any adverse environmental impacts to the extent practicable.” 16 U.S.C. § 824a(c)(4)(B). EPA did not suggest additional conditions or indicate concerns with DOE’s approach. *See* Email from L. Starfield to P. Hoffman (Sept. 11, 2017), available at <https://energy.gov/oe/downloads/additional-documents-order-no-202-17-4>.

Nevertheless, there is a reasonable expectation that some emissions could exceed the MATS. Yorktown Units 1 and 2 are not equipped to be MATS compliant. As all parties have acknowledged, that is the reason Dominion seeks to retire the units and why it sought and was granted compliance extensions from VADEQ and EPA, and in part, why the September Order<sup>28</sup> was requested.

After stating the per pound emissions estimates, Sierra Club then cites to PJM’s estimates for total emissions of mercury and HCl over the projected 18-20 month period and concludes, without any supporting analysis related to the operation of Units 1 and 2, that “[t]hose emissions will have a significant impact.” Petition at 6. DOE assessed the constrained operation allowed under the September Order and determined that the constraints were consistent with those previously imposed by EPA in the ACO, and that such operations would not result in significant impacts. Sierra Club cites to selective parts of EPA’s May 2011 proposed rulemaking related to National Emissions Standards for Hazardous Air Pollutants and Standards of Performance which are inapposite to the Order,<sup>29</sup> and states that mercury is hazardous even in small quantities and that HCl can cause acute and chronic health harms. *See id.* Also, as an attachment to its Petition, Sierra Club includes a 2011 EPA memorandum related to a non-Hg case study of chronic

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<sup>28</sup> “[A]ction taken by a party, that is necessary to comply with an order issued under this subsection” which “results in non-compliance with . . . any Federal, State, or local environmental law or regulation . . . shall not be considered a violation . . . or subject such party to any requirement, civil or criminal liability, or a citizen suit.” 16 U.S.C. § 824a(c)(3).

<sup>29</sup> For example, Sierra Club notes a dose of .0001mg/kg-day for mercury and states that exposures above that level raise health concerns. *See* Petition at 6. This dose is the “reference dose” (RfD) for methyl mercury, which was described during the rulemaking as “the amount of a chemical which, when ingested daily over a lifetime, is anticipated to be without adverse health effects to humans, including sensitive subpopulations.” 76 Fed. Reg. 24,976, 24,982 (May 3, 2011). The rulemaking further described the RfD as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure . . . that is likely to be without an appreciable risk of deleterious effects during a lifetime.” *Id.* at 25,000. This scenario plainly does not reflect expected exposure based on operations under the September Order. The operations of Units 1 & 2 will be limited to generation needed to meet grid reliability, and will be of a limited 18-20 month duration.



## Summary of Findings for Department of Energy Order No. 202-18-1

inhalation risks that does not correlate to the emissions or potential exposures related to the September Order.<sup>30</sup> See Petition at 6; EPA Memorandum (Mar. 16, 2011) attached to Petition. Yet, Sierra Club has provided no applicable data or analysis in support of this claim, and therefore has failed to demonstrate significant impacts from the subject Order.

Finally, Sierra Club notes that CEQ has NEPA procedures that are applicable in emergency situations. See Petition at 8. The Department agrees that § 1506.11 provides that “[w]here emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements.” As explained above, the Department concluded that issuance of the September Order would not result in significant environmental impacts. Therefore, alternative arrangements and consultation were not required. In this case, the Department has chosen to proceed consistently with one of the established levels of NEPA review: issuance of a CX determination.<sup>31</sup>

Sierra Club concludes by stating that the extended nature of the situation provides time for DOE to conduct additional NEPA review and to inform subsequent renewals. See Petition at 9-10. As detailed above, the Department has complied with NEPA by issuing a CX determination. Nevertheless, the Department will evaluate any future renewal applications from PJM and assess the appropriate level of NEPA review based on the facts presented at that time.

### **Conclusion**

When emergency situations arise, it is critical to have the tools to respond to them quickly, efficiently, and effectively. The Department issued the September Order because, in the Secretary’s judgment, its provisions would best meet the emergency and serve the public interest in the North Hampton Roads area. The operative interest is in keeping the lights on, allowing the PJM-mandated transmission upgrades to continue, while to the maximum extent practicable remaining consistent with environmental law and minimizing the adverse effects of power generation on human health and the environment. The September Order is tailored to accomplish those goals. Accordingly, Sierra Club’s petition for rehearing is denied.

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<sup>30</sup> Sierra Club cites this inapposite study because it references the Yorktown facility. The study was actually based on 5-year concentrations for pollutants that were calculated based on information from 2005-2009, and the maximum individual risk for each facility was calculated based on “risk associated with a continuous lifetime (24 hours per day, 7 days per week, and 52 weeks per year for a 70-year period) exposure to the maximum concentration.” EPA Memorandum at 12.

<sup>31</sup> Sierra Club incorporates by reference Section IV.C of its original Petition. See Petition at 8 n.5. The substantive arguments raised therein have been addressed above.



**From:** Jereza, Catherine  
**To:** Konieczny, Katherine; Bittner, Kathy (CONTR)  
**Cc:** Drake, Christopher; Batra, Rakesh; Rosenbaum, Matthew  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)  
**Date:** Monday, November 06, 2017 3:56:48 PM

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Perfect – thank you all and congrats to a job well done! I will add Kevin and change my greeting to “afternoon” since we are doing this before 4pm today ☺

Cheers

Katie

**From:** Konieczny, Katherine  
**Sent:** Monday, November 06, 2017 3:51 PM  
**To:** Bittner, Kathy (CONTR) ; Jereza, Catherine  
**Cc:** Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Looks like the right one. Attached as pdf with name omitting the date/time. I also added one email address to the draft notification email below. Kevin Finto is outside counsel to Dominion and he signed Dominion’s last filing.

-Kathy K

**From:** Bittner, Kathy (CONTR)  
**Sent:** Monday, November 06, 2017 3:39 PM  
**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>  
**Cc:** Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>; Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>; Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>; Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>  
**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Sure, here it is.

**From:** Jereza, Catherine  
**Sent:** Monday, November 06, 2017 3:36 PM  
**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>  
**Cc:** Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>; Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>; Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>; Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>  
**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – do you have the electronic version that includes John Lucas’ edits? Can you send so we can make sure the right version goes out.

Once we have that, I’ll be sending the email out below.

Thanks!

Katie

**From:** Jereza, Catherine  
**To:** [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com); [craig.glazer@pjm.com](mailto:craig.glazer@pjm.com); [michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com); [sanjay.narayan@sierraclub.org](mailto:sanjay.narayan@sierraclub.org); [casey.roberts@sierraclub.org](mailto:casey.roberts@sierraclub.org); [bridget.lee@sierraclub.org](mailto:bridget.lee@sierraclub.org); [kfinto@huntington.com](mailto:kfinto@huntington.com)

**Cc:** Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

**Subject:** DOE Order 202-18-1



Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

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**From:** Bittner, Kathy (CONTR)

**Sent:** Monday, November 06, 2017 3:07 PM

**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>

**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

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**From:** Bittner, Kathy (CONTR)

**Sent:** Friday, November 03, 2017 3:31 PM

**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>

**Cc:** Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

**Subject:** RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary now.

Have a great weekend.

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)

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**From:** Jereza, Catherine

**Sent:** Friday, November 03, 2017 12:35 PM

**To:** Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>

**Subject:** FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie



**From:** Jereza, Catherine  
**To:** Steven.Pincus@pim.com; craig.glazer@pim.com; michael.regulinski@dominionenergy.com; saniay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org; kfinto@hunton.com  
**Cc:** Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine  
**Subject:** DOE Order 202-18-1  
**Date:** Monday, November 06, 2017 3:59:07 PM  
**Attachments:** Signed Order 202-18-1.pdf  
Summary of Findings Order No. 202-18-1.pdf

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Good afternoon,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,  
Katie

Catherine Jereza  
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance  
Office of Electricity Delivery & Energy Reliability  
U.S. Department of Energy  
(o) 202.586.0334  
(c) (b) (6)

Aleisha Harris  
aleisha.harris@hq.doe.gov  
202.586.3876

**\*\* Please contact Aleisha for all meeting and scheduling requests. \*\***



**From:** Drake, Christopher  
**To:** Jereza, Catherine  
**Cc:** Batra, Rakesh; Rosenbaum, Matthew; Konieczny, Katherine  
**Subject:** RE: DOE Order 202-18-1  
**Date:** Monday, November 06, 2017 4:01:00 PM

---

Katie,

Yes, we'll take care of it.

-----Original Message-----

**From:** Jereza, Catherine  
**Sent:** Monday, November 06, 2017 4:00 PM  
**To:** Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** RE: DOE Order 202-18-1

I guess this is a go on the website postings, etc. Can you help with that again?

-----Original Message-----

**From:** Konieczny, Katherine  
**Sent:** Monday, November 06, 2017 2:00 PM  
**To:** Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>  
**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>  
**Subject:** DOE Order 202-18-1  
**Importance:** High

Hi Katie,  
(b) (5)

Thanks,  
Kathy

-----Original Message-----

**From:** Jereza, Catherine  
**Sent:** Thursday, September 14, 2017 6:27 PM  
**To:** Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org  
**Cc:** Hoffinan, Patricia <Pat.Hoffinan@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>  
**Subject:** DOE Order 202-17-4

Good evening,

Today the Secretary of Energy issued Order No. 202-17-4. The Order and Summary of Findings are attached.

Regards,  
Katie

Catherine Jereza  
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance  
Office of Electricity Delivery & Energy Reliability



U.S. Department of Energy  
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Aleisha Harris  
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202.586.3876

**\*\* Please contact Aleisha for all meeting and scheduling requests. \*\***



**From:** Michael Regulinski  
**To:** Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.; Mohammed Alfayyoumi; Mike Barner; casey.roberts@sierraclub.org; saniay.narayan@sierraclub.org  
**Subject:** Yorktown Units Test Run Report; DOE Order No. 202-17-4  
**Date:** Thursday, November 09, 2017 5:39:44 PM  
**Attachments:** DOE Report Nov 9 2017 Yorktown Test Run.pdf  
YT12 Intake Circulating Water Usage Oct 2017.xlsx  
Yorktown Bi-Weekly Hourly Emissions Data 20171017-20171030.xlsx

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Please see attached Yorktown Test Run Report required by DOE Order No. 202-17-4. Please let me know if you have any questions. Thanks,

Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
teline: 738-2794  
P: (804) 819-2794  
C: (b) (6)  
michael.regulinski@dominionenergy.com

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November 9, 2017



The Honorable James Richard Perry  
Secretary of the Energy  
United States Department of Energy  
1000 Independence Ave, SW  
Washington, DC 20585

**Re: Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4**

Dear Secretary Perry:

Pursuant to Order No. 202-17-4 (the "Order") issued on September 14, 2017, by the Secretary of Energy ("Secretary"), PJM Interconnection, L.L.C. ("PJM") and Dominion Virginia Electric and Power Company ("Dominion Energy Virginia") respectfully submits the attached reports regarding a test run of Yorktown Units 1 and 2 on October 25 2017 in accordance with the Secretary's directive to "report all dates on which Yorktown Unites 1 and 2 are operated as well as the estimated emissions and water usage data associated with their operations."<sup>1</sup>

In the PJM application submitted June 13, 2017 (incorporated by reference in the PJM August 24 renewal application), PJM explained that emissions from the plant would occur at times outside of periods where PJM dispatches the Yorktown units for reliability.<sup>2</sup> These times include basic, periodic, and compliance related activities undertaken to ensure the units remain reliable and capable of operating when necessary. These activities are consistent with normal operating procedures and good engineering practices. These activities include operating equipment for maintenance testing and reliability check out, testing of fuel systems, tuning of units, required emissions or operational testing, and other operating procedures. Without performing these activities Dominion Energy Virginia may not be prepared to run the Yorktown Units when directed by PJM to ensure reliability.

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<sup>1</sup> Order at page 2. The Order is for the period September 15 to December 14, and directs the emission report to be submitted every two weeks. November 9 is the end of the fourth two week period.

<sup>2</sup> PJM Application at page 13, incorporated by reference in the PJM Renewal Application at page 1.



On October 25, for approximately 5 hours Dominion Energy Virginia tested equipment on the Yorktown Units as part of a quarterly effort to ensure reliability of these two units when called upon by PJM to provide grid stability. This testing included running sub-systems and firing of ignitors and warm up burners to functionally test and verify operation for start-up. Dominion Energy Virginia did not fire the boiler for any extended period but just long enough to cycle through all the ignitors and warm up the burners. The Company tests each unit individually; the first run was the unit 1 reliability test and the second run was the unit 2 reliability test run. The two tests differed in duration due to troubleshooting of equipment issues for the start-up as well as working through some opacity issues that is commonplace when a boiler sits for a period of time and ash settles in the ductwork.

Dominion Energy Virginia does not plan on testing these units again this year but will likely test again at the beginning of 2018 depending on whether PJM dispatches the units and they operate before the end of December. If PJM dispatches the units, Dominion Energy Virginia plans on conducting these tests 2-1/2 to 3 months after the last run. For example, PJM dispatches the units in mid- December, Dominion Energy Virginia would not test again until near the end of March, but if PJM dispatches the units in late December, January, or February the units would not test again until near the end of May.<sup>3</sup>

Attachment 1 to this report is the Yorktown Power Station Bi-weekly Emissions Data for October 17 to October 30 that shows the actual runtime and air emissions data for the period. This spreadsheet includes hourly runtime data for the equipment for the Yorktown units, and raw and calculated data showing emissions data associated with operations of the equipment. Note that the Yorktown generators did not generate any power transmitted to the grid during the test.

The information in Attachment 1 reports hourly emissions of PM-10 and SO<sub>2</sub> in pounds per hour and pounds per million BTU, and mercury in pounds per hour and pounds per trillion BTU (Mercury and Air Toxics Standards (MATS) format) for the operating period beginning August 21 through August 23, 2017. Additionally, Attachment 1 provides hourly emissions of NO<sub>x</sub> in pounds per hour, greenhouse

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<sup>3</sup> The later test date runs assumes, of course, that PJM submits another renewal application which is subsequently granted by the Secretary.

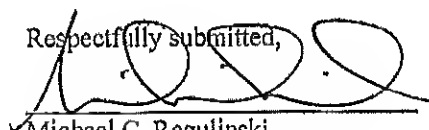


gases (as CO<sub>2</sub>) in tons per hour, lead in pounds per hour, HCl in pounds per hour, HF in pounds per hour, and CO in pounds per hour. NO<sub>x</sub> and SO<sub>2</sub> emissions are based on valid hours of Continuous Emissions Monitoring System (CEMS) data for the period. PM-10 emissions are based on the emission factor derived from the July 21, 2017 stack test (0.0168 lbs/mmBtu corrected to 0.1143 lbs/mmBtu calculated for PM-10 filterable plus condensable). CO<sub>2</sub> emissions are based on valid CEMS hours for the operating period. All other emissions were calculated using emission factors from AP-42, Fifth Edition, Volume 1, Chapter 1: External Combustion Sources and calculated hourly coal consumption in tons.<sup>4</sup>

Attachment 2 of this report is entitled "Yorktown Power Station October 2017 Circulating Water Usage for Reliability Test." This report provides the intake circulating water usage for the Yorktown units tests.

PJM and Dominion Energy Virginia respectfully submits the information in this report be accepted by the Secretary as compliant with the Order's directives to report all dates on which Yorktown Units 1 and 2 are operated well as the estimated and actual emissions and water usage data associated with their operations.

Respectfully submitted,



Michael C. Regulinski  
Managing General Counsel  
Dominion Energy Services, Inc.  
120 Tredegar Street, RS-2  
Richmond, Virginia 23219  
Phone: (804) 819-2794  
Email: michael.regulinski@dominionenergy.com

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<sup>4</sup> Mercury and lead emissions were calculated using AP-42, Table 1.1-18. CO emissions were calculated using emission factors from AP-42, Table 1.1-3. Total HAP metals and individual HAP metals are not provided because MATS Table 2 (40 CFR 63, Subpart UUUUU) provides for compliance with either the PM limit or total non-mercury HAP metals limits or individual HAP metals. Dominion Energy Virginia is providing PM-10 emissions for the purposes of MATS. HCl and HF emissions were calculated using emission factors from AP-42, Table 1.1-15.



Steven R. Pincus  
Associate General Counsel  
PJM Interconnection, L.L.C.  
955 Jefferson Avenue  
Valley Forge Corporate Center  
Norristown, PA 19403-2497  
Phone: 610-666-4370  
Email: [pincus@pjm.com](mailto:pincus@pjm.com)

Craig Glazer  
VP, Federal Government Policy  
PJM Interconnection, L.L.C.

Cc: Pat Hoffman, U.S. Department of Energy  
Catherine Jereza, U.S. Department of Energy  
Rakesh Batra, U.S. Department of Energy  
Michael C. Regulinski, Dominion Energy Services, Inc.  
Casey Roberts, Sierra Club Environmental Law Program



**Yarktown Power Station October 2017 Circulating Water Usage for Re**

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification</i>	<i>Turbine Metal Temp &lt; 300 deg</i>
1	10/25/17 15:41	10/25/17 21:27	0.24	10/25/17 15:41	10/25/17 21:27
Million gallons of Intake Circulating Water th					

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification</i>	<i>Turbine Metal Temp &lt; 300 deg</i>
2	10/25/17 22:02	10/26/17 0:22	0.10	10/25/17 22:02	10/26/17 0:22
Million gallons of Intake Circulating Water th					

<b>Total million gallons through Unit 1</b>
---------------------------------------------



**liability Test**

<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
0.24	34
rough Unit 1	34

<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
0.10	14
rough Unit 2	14

& 2	48
-----	----



## Substrates Data

Date & Hour		Unit 1 Load (Gross MW)	Unit 2 Load (Gross MW)	Common Stack											
				Operation (x-xx Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)	
10-17-2017	00	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	01	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	02	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	03	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	04	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	05	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	06	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	07	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	08	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	09	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	10	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	11	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	12	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	13	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	14	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	15	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	16	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	17	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	18	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	19	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	20	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	21	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	22	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-17-2017	23	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	00	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	01	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	02	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	03	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	04	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	05	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	06	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	07	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	08	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	09	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	10	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017	11	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0	0



## Substituted Data

Common Stack												
Date & Hour	Operation (x.xx Hour)	Heat Input (mmBtu)	NOx (Lbs)	SO2 (Lbs)	CO2 (Tons)	Coal (Tons)	PM10 (Lbs)	Lead (Lbs)	Mercury (Lbs)	HCl (Lbs)	HF (Lbs)	
10-18-2017 12	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 13	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 14	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 15	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 16	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 17	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 18	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 19	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 20	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 21	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 22	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-18-2017 23	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 00	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 01	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 02	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 03	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 04	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 05	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 06	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 07	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 08	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 09	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 10	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 11	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 12	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 13	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 14	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 15	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 16	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 17	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 18	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 19	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 20	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 21	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 22	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0
10-19-2017 23	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	0



## Oct 17, 2017 through Oct 30, 2017

Substituted Data



Dominion Energy – Yorktown Power Station  
 Bi-Weekly Mass Emissions  
 Oct 17, 2017 through Oct 30, 2017

Substituted Data	Common Stack											Unit 1 Load		Unit 2 Load	
	Operation (x.xx Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)	(Gross MW)		(Gross MW)	
10-21-2017 12	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 13	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 14	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 15	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 16	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 17	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 18	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 19	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 20	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 21	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 22	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-21-2017 23	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 00	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 01	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 02	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 03	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 04	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 05	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 06	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 07	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 08	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 09	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 10	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 11	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 12	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 13	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 14	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 15	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 16	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 17	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 18	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 19	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 20	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 21	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 22	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	
10-22-2017 23	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0		0	



Substation Data	Unit 1 Load		Unit 2 Load		Common Stack									
	Date & Hour	(Gross MW)	Operation (x.xx Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)	
	10-23-2017 00	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 01	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 02	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 03	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 04	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 05	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 06	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 07	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 08	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 09	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 10	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 11	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 12	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 13	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 14	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 15	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 16	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 17	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 18	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 19	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 20	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 21	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 22	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-23-2017 23	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 00	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 01	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 02	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 03	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 04	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 05	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 06	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 07	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 08	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 09	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 10	0	0	0.00	0.0	0.0	0.0	0.00	0	0	0	0	0	
	10-24-2017 11	0												



Dominion Energy - Yorktown Power Station  
84 Weekly Mass Emissions

Oct 17, 2017 through Oct 30, 2017

Substituted Data	Unit 1 Load		Unit 2 Load		Common Stack									
	Date & Hour	(Gross MW)	(Gross MW)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)	
														Operation (x.xx Hour)
	10-24-2017 12	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 13	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 14	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 15	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 16	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 17	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 18	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 19	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 20	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 21	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 22	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-24-2017 23	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 00	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 01	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 02	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 03	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 04	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 05	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 06	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 07	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 08	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 09	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 10	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 11	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 12	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 13	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 14	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 15	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 16	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 17	0	0	0.20	2.0	0.0	0.1	0.2	0.08	0.233172	5.77E-06	0.09753	0.012191	0.063347
	10-25-2017 18	0	0	1.00	10.6	0.0	0.6	1.1	0.42	1.21158	3E-05	0.506773	0.063347	0.065737
	10-25-2017 19	0	0	1.00	11.0	0.0	0.3	1.1	0.44	1.2573	3.11E-05	0.525896	0.065737	0.130052
	10-25-2017 20	0	0	0.93	21.8	0.1	0.3	2.2	0.87	2.487397	6.16E-05	1.040414	0.130052	0.067829
	10-25-2017 21	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 22	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-25-2017 23	0	0	0.50	11.4	0.1	0.1	1.2	0.45	1.297305	3.21E-05	0.542629	0.067829	0.130052



## Oct 17, 2017 through Oct 30, 2017

PERIOD	DATE
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[illegible]



Date & Hour		Unit 1 Load		Unit 2 Load		Common Stack										
		(Gross MW)		(Gross MW)		Operation (x.xx Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)
10-29-2017	00	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	01	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	02	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	03	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	04	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	05	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	06	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	07	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	08	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	09	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	10	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	11	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	12	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	13	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	14	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	15	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	16	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	17	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	18	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	19	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	20	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	21	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	22	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-29-2017	23	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	00	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	01	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	02	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	03	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	04	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
10-30-2017	05	0	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0



Dominion Energy - Yorktown Power Station  
 Bi-Weekly Mass Emissions  
 Oct 17, 2017 through Oct 30, 2017

Substituted Date	Unit 1 Load		Unit 2 Load		Common Stack										
	Date & Hour	(Gross MW)	(Gross MW)		Operation (x.xx Hour)	Heat Input (mmBtu)	NOx (Lbs)	SO2 (Lbs)	CO2 (Tons)	Coal (Tons)	PM10 (Lbs)	Lead (Lbs)	Mercury (Lbs)	HCl (Lbs)	HF (Lbs)
	10-30-2017 12	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 13	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 14	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 15	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 16	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 17	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 18	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 19	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 20	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 21	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 22	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	10-30-2017 23	0	0	0	0.00	0.0	0.0	0.0	0.0	0.00	0	0	0	0	0
	Bi-Weekly Total Tons					56.8	0.0	0.0	5.8	2.26	0.003243	8.03E-08	9.38E-08	0.001357	0.00017
						mmBtu									

Note:

All data are collected and processed in accordance with Part 75.

Data with orange fill are substituted in accordance with Part 75.

Monthly sums may not agree with data published by EPA due to the handling of quarterly and annual totals.



**From:** [Bittner, Kathy \(CONTR\)](#)  
**To:** [Batra, Rakesh](#)  
**Cc:** [Jereza, Catherine](#)  
**Subject:** 2017-008571 - Yorktown Run Test Run Report (Order 202-17-4)  
**Date:** Tuesday, November 14, 2017 1:21:35 PM  
**Attachments:** [2017-008571 - Incoming.pdf](#)

---

Hi Rakesh and Katie,

I believe that you both have received this, but wanted to send it just in case.

From a correspondence perspective, no further action is required.

Thanks,

Kathy Bittner  
Correspondence Specialist  
ICF, Contractor for U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Phone: (202) 287-5613  
Email: [kathy.bittner@hq.doe.gov](mailto:kathy.bittner@hq.doe.gov)



11/9/17

**Stanton, Kimberly (CONTR)**

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**From:** Michael Regulinski <michael.regulinski@dominionenergy.com>  
**Sent:** Thursday, November 09, 2017 5:39 PM  
**To:** Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine  
**Cc:** Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tarn, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.; Mohammed Alfayyumi; Mike Barner; casey.roberts@sierraclub.org; sanjay.narayan@sierraclub.org  
**Subject:** Yorktown Units Test Run Report; DOE Order No. 202-17-4  
**Attachments:** DOE Report Nov 9 2017 Yorktown Test Run.pdf; YT12 Intake Circulating Water Usage\_Oct 2017.xlsx; Yorktown Bi-Weekly Hourly Emissions Data 20171017-20171030.xlsx

Please see attached Yorktown Test Run Report required by DOE Order No. 202-17-4. Please let me know if you have any questions. Thanks,

Michael C. Regulinski  
Managing General Counsel

Dominion Energy Services, Inc.  
teline: 738-2794  
P: (804) 819-2794  
C: (b) (6)  
michael.regulinski@dominionenergy.com

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**From:** Konieczny, Katherine  
**To:** Batra, Rakesh  
**Subject:** RE: DOE Informal Question  
**Date:** Tuesday, November 21, 2017 11:18:18 AM

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Thanks, Rakesh! Happy Thanksgiving!

**From:** Batra, Rakesh  
**Sent:** Tuesday, November 21, 2017 10:48 AM  
**To:** Michael Regulinski ; Pincus, Steven ; Sharon L. Burr ; Miranda R Yost ; Rick R Linker ; Mike Barmer ; Mohammed Alfayyumi  
**Cc:** Konieczny, Katherine ; Drake, Christopher  
**Subject:** DOE Informal Question  
(b) (5)

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on **December 13, 2017**. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

Thanks,  
Rakesh Batra  
202-586-1283



**From:** Pincus, Steven  
**To:** Batra, Rakesh; Michael Regulinski; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barner; Mohammed Alfayyoumi; Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig  
**Cc:** Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.  
**Subject:** PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
**Date:** Tuesday, November 21, 2017 2:57:06 PM

---

(b) (5)

Thank you and Happy Thanksgiving.

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

This e-mail message and any attached files are confidential and are solely for the use of the intended recipient.

---

**From:** Batra, Rakesh [mailto:[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)]  
**Sent:** Tuesday, November 21, 2017 10:48 AM  
**To:** Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barner; Mohammed Alfayyoumi  
**Cc:** Konieczny, Katherine; Drake, Christopher  
**Subject:** DOE Informal Question

External Email! Think before clicking links or attachments.

(b) (5)

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on **December 13, 2017**. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

Thanks,  
Rakesh Batra  
202-586-1283



**From:** Pincus, Steven  
**To:** [Konieczny, Katherine](#); [Batra, Rakesh](#); [Michael Regulinski](#); [Sharon L. Burr](#); [Miranda R Yost](#); [Rick R Linker](#); [Mike Barmer](#); [Mohammed Alfayyoumi](#); [Tam, Simon K.](#); [Bryson, Mike E.](#); [Souder, David W.](#); [Glazer, Craig](#)  
**Cc:** [Drake, Christopher](#); [O'Hara, Chris](#); [Mars, Jennifer A.](#); [Rosenbaum, Matthew](#); [Mills, Brian](#)  
**Subject:** RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
**Date:** Wednesday, November 22, 2017 1:13:52 PM

We will try to reschedule for Tuesday.

**From:** Konieczny, Katherine [<mailto:Katherine.Konieczny@Hq.Doe.Gov>]  
**Sent:** Wednesday, November 22, 2017 1:06 PM  
**To:** Pincus, Steven; Batra, Rakesh; Michael Regulinski; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayyoumi; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig  
**Cc:** Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Rosenbaum, Matthew; Mills, Brian  
**Subject:** RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

External Email! Think before clicking links or attachments.

It appears that none of the DOE program folks is available at 5pm Monday. Can the call be moved earlier in the day? Tuesday 11/28 is preferred.

**From:** Pincus, Steven [<mailto:Steven.Pincus@pjm.com>]  
**Sent:** Wednesday, November 22, 2017 1:00 PM  
**To:** Batra, Rakesh <[Rakesh.Batra@Hq.Doe.Gov](mailto:Rakesh.Batra@Hq.Doe.Gov)>; Michael Regulinski <[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)>; Sharon L. Burr <[sharon.l.burr@dominionenergy.com](mailto:sharon.l.burr@dominionenergy.com)>; Miranda R Yost <[Miranda.R.Yost@dominionenergy.com](mailto:Miranda.R.Yost@dominionenergy.com)>; Rick R Linker <[rick.r.linker@dominionenergy.com](mailto:rick.r.linker@dominionenergy.com)>; Mike Barmer <[mike.barmer@dominionenergy.com](mailto:mike.barmer@dominionenergy.com)>; Mohammed Alfayyoumi <[mohammed.alfayyoumi@dominionenergy.com](mailto:mohammed.alfayyoumi@dominionenergy.com)>; Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>; Tam, Simon K. <[Simon.Tam@pjm.com](mailto:Simon.Tam@pjm.com)>; Bryson, Mike E. <[Michael.Bryson@pjm.com](mailto:Michael.Bryson@pjm.com)>; Souder, David W. <[David.Souder@pjm.com](mailto:David.Souder@pjm.com)>; Glazer, Craig <[Craig.Glazer@pjm.com](mailto:Craig.Glazer@pjm.com)>  
**Cc:** Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>; O'Hara, Chris <[Chris.OHara@pjm.com](mailto:Chris.OHara@pjm.com)>; Mars, Jennifer A. <[Jennifer.Mars@pjm.com](mailto:Jennifer.Mars@pjm.com)>; Mills, Brian <[Brian.Mills@hq.doe.gov](mailto:Brian.Mills@hq.doe.gov)>; Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>  
**Subject:** RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

The call is scheduled for Monday at 5:00. The call in numbers is included in the Outlook meeting invitation which you all should have received by now. If you need the numbers resent please let us know. Thank you. Steve

**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]  
**Sent:** Wednesday, November 22, 2017 12:57 PM  
**To:** Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayyoumi; Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig  
**Cc:** Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Mills, Brian; Rosenbaum, Matthew  
**Subject:** RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

External Email! Think before clicking links or attachments.

I guess Mr. Pincus didn't send out the call number. (b) (6)  
 Rakesh



**From:** Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]

**Sent:** Tuesday, November 21, 2017 5:07 PM

**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Pincus, Steven <Steven.Pincus@pjm.com>; Sharon L. Burr <sharon.l.burr@dominionenergy.com>; Miranda R Yost <Miranda.R.Yost@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Mike Barmer <mike.barmer@dominionenergy.com>; Mohammed Alfayyoumi <mohammed.alfayyoumi@dominionenergy.com>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Tam, Simon K. <Simon.Tam@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Glazer, Craig <Craig.Glazer@pjm.com>

**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; O'Hara, Chris <Chris.OHara@pjm.com>; Mars, Jennifer A. <Jennifer.Mars@pjm.com>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

**Subject:** RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

I am available for a call tomorrow 11-12 EST. Please send a call in number. Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

[michael.regulinski@dominionenergy.com](mailto:michael.regulinski@dominionenergy.com)

---

**From:** Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]

**Sent:** Tuesday, November 21, 2017 3:12 PM

**To:** Pincus, Steven; Michael Regulinski (Services - 6); Sharon L. Burr (Services - 6); Miranda R Yost (Services - 6); Rick R Linker (Services - 6); Mike Barmer (VirginiaPower - 1T); Mohammed Alfayyoumi (VirginiaPower - 1T); Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig

**Cc:** Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Mills, Brian; Rosenbaum, Matthew

**Subject:** [External] RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

I am available tomorrow morning before noon. Not available on Monday. Next availability is Tuesday, Nov 28, any time except 10-11am.

Rakesh

**From:** Pincus, Steven [mailto:Steven.Pincus@pjm.com]

**Sent:** Tuesday, November 21, 2017 2:57 PM

**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Michael Regulinski <michael.regulinski@dominionenergy.com>; Sharon L. Burr <sharon.l.burr@dominionenergy.com>; Miranda R Yost <Miranda.R.Yost@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Mike Barmer <mike.barmer@dominionenergy.com>; Mohammed Alfayyoumi <mohammed.alfayyoumi@dominionenergy.com>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Tam, Simon K. <Simon.Tam@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Glazer, Craig <Craig.Glazer@pjm.com>

**Cc:** Drake, Christopher <Christopher.Drake@hq.doe.gov>; O'Hara, Chris



<Chris.OHara@pjm.com>; Mars, Jennifer A. <Jennifer.Mars@pjm.com>

**Subject:** PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

PJM would like to schedule a conference with DOE staff and Dominion to discuss technical questions on the renewal application due next week. Please send my assistant Jenny Mars your availability for a call tomorrow afternoon or Monday.

Thank you and Happy Thanksgiving.

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

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---

**From:** Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]

**Sent:** Tuesday, November 21, 2017 10:48 AM

**To:** Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayyumi

**Cc:** Konieczny, Katherine; Drake, Christopher

**Subject:** DOE Informal Question

**External Email! Think before clicking links or attachments.**

In preparations for renewal of Order No. 202-17-4, which expires in mid-December, now that PJM and/or Dominion will have enough data to answer the following question, we would like you to provide DOE a spreadsheet that reflects historical operations and emissions data for Units 1 and 2 for the years 2015-2017. Please provide the same categories of information (run time, MW, emissions, etc.) and in the same format used in Attachment 3 of the September Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4.

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on **December 13, 2017**. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

PJM's renewal request would therefore be due no later than **Wednesday, November 29**.

Thanks,

Rakesh Batra

202-586-1283

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**CONFIDENTIALITY NOTICE:** This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic



transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.



**From:** Pincus, Steven  
**To:** Glazer, Craig; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Konieczny, Katherine; Drake, Christopher; Mills, Brian; Rosenbaum, Matthew; Batra, Rakesh  
**Subject:** RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
**Date:** Monday, November 27, 2017 10:53:57 AM

---

DOE Representatives: (b) (5)

Thank you, Steve

-----Original Appointment-----

**From:** O'Hara, Chris

**Sent:** Wednesday, November 22, 2017 10:32 AM

**To:** O'Hara, Chris; Glazer, Craig; Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Egan, David M.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Miranda.R.Yost@dominionenergy.com; mohammed.alfayyoumi@dominionenergy.com; mike.barmer@dominionenergy.com; rick.r.linker@dominionenergy.com; Katherine.Konieczny@Hq.Doe.Gov; Christopher.Drake@hq.doe.gov; Brian.Mills@hq.doe.gov; Matthew.Rosenbaum@hq.doe.gov; 'Rakesh.Batra@Hq.Doe.Gov'

**Subject:** JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

**When:** Monday, November 27, 2017 5:00 PM-6:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Conference Call

**Participants:** (b) (6)

**Meeting Access ID:** (b) (6)

**AUTO DIAL WITH PASSCODE:** (b) (6)

Jenny



**From:** Konieczny, Katherine  
**To:** Pincus, Steven; Drake, Christopher; Mills, Brian; Rosenbaum, Matthew; Batra, Rakesh  
**Subject:** RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
**Date:** Monday, November 27, 2017 10:55:48 AM

---

(b) (6), (b) (5)

**From:** Pincus, Steven [mailto:Steven.Pincus@pjm.com]  
**Sent:** Monday, November 27, 2017 10:54 AM  
**To:** Glazer, Craig ; Bryson, Mike E. ; Souder, David W. ; Tam, Simon K. ; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Konieczny, Katherine ; Drake, Christopher ; Mills, Brian ; Rosenbaum, Matthew ; Batra, Rakesh  
**Subject:** RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
DOE Representatives: (b) (5)

Thank you. Steve

-----Original Appointment-----

**From:** O'Hara, Chris  
**Sent:** Wednesday, November 22, 2017 10:32 AM  
**To:** O'Hara, Chris; Glazer, Craig; Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Egan, David M.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Miranda.R.Yost@dominionenergy.com; mohammed.alfayyumi@dominionenergy.com; mike.barmer@dominionenergy.com; rick.r.linker@dominionenergy.com; Katherine.Konieczny@Hq.Doe.Gov; Christopher.Drake@hq.doe.gov; Brian.Mills@hq.doe.gov; Matthew.Rosenbaum@hq.doe.gov; 'Rakesh.Batra@Hq.Doe.Gov'  
**Subject:** JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions  
**When:** Monday, November 27, 2017 5:00 PM-6:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** Conference Call  
**Participants:** (b) (6)  
**Meeting Access ID:** (b) (6)  
**AUTO DIAL WITH PASSCODE:** (b) (6)  
Jenny



**From:** Pincus, Steven  
**To:** Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine  
**Cc:** Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Michael Regulinski (Services - 6); casey.roberts@sierraclub.org; Robinson, Evelyn  
**Subject:** Order No. 202-17-4 Renewal Application Filing  
**Date:** Wednesday, November 29, 2017 4:13:01 PM  
**Attachments:** DOE Order 202-17-4 PJM Renewal Application Letter 11-29-17.pdf

---

Dear Secretary Perry:

PJM respectfully submits for filing a ninety (90) day Renewal Application in accordance with Section 202(c) of the Federal Power Act, the Department of Energy's Rules of Practice and Procedure and Order No. 202-17-4.

Please contact me if you have any questions.

Thank you for your consideration.

Respectfully,

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403





PJM Interconnection, L.L.C.  
2750 Monroe Boulevard  
Audubon, PA 19403

Steven R. Pincus  
Associate General Counsel  
T: (610) 666-4438 | F: (610) 666-8211  
[steven.pincus@pjm.com](mailto:steven.pincus@pjm.com)

November 29, 2017

The Honorable James Richard Perry  
Secretary of the Energy  
United States Department of Energy  
1000 Independence Ave, SW  
Washington, DC 20585

**Re: Order No. 202-17-4 Renewal Application Filing**

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),<sup>1</sup> Section 301(b) of the Department of Energy Organization Act,<sup>2</sup> the Department of Energy's ("DOE") Rules of Practice and Procedure<sup>3</sup> and Order No. 202-17-4 issued on September 14, 2017 by the Secretary of Energy ("Secretary") (the "September 14 Order"), PJM Interconnection, L.L.C. ("PJM") respectfully submits a request for a 90-day renewal of the September 14 Order. PJM incorporates by reference PJM's application submitted on June 13, 2017 (the "June 13 Application") and all attachments and appendices thereto, and PJM's August 24, 2017 renewal application (the "August 24 Application") and all attachments and appendices thereto. PJM also incorporates by reference the various reports to DOE concerning the operations and emission data provided by PJM and Virginia Electric and Power Company ("Dominion Energy Virginia") referenced below.

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<sup>1</sup> 16 U.S.C. § 824a(c).

<sup>2</sup> 42 U.S.C. §§ 7101 and 7151(b).

<sup>3</sup> 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373.



## **Background**

In the June 13 Application, PJM stated the need to request renewals of the Order No. 202-17-2 issued on June 16, 2017 (the “June 16 Order”) on a rolling basis until the PJM ordered Regional Transmission Expansion Planning Process (“RTEPP”) Skiffes Creek Transmission Project is placed into service, which was at that time anticipated to be completed in 18-20 months once all permits are issued.<sup>4</sup> In the June 16 Order, the Secretary determined “that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest.”<sup>5</sup> In doing so, the Secretary directed Dominion Energy Virginia to operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the initial 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.<sup>6</sup> The Secretary also directed PJM and Dominion Energy Virginia to develop and implement a dispatch methodology and submit it to the DOE upon implementation.<sup>7</sup> The dispatch methodology was submitted by PJM on June 27, 2017.

In the August 24 Application, PJM submitted a request for a 90 day renewal of the June 16 Order. PJM requested an order of the Secretary under Section 202 (c) of the FPA which provides among other things that an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric

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<sup>4</sup> On October 12, 2017, PJM and Dominion Energy Virginia submitted a report updating the outage schedule for the Skiffes Creek Transmission Project with an extension of the construction schedule of approximately five and one-half months from December 30, 2018 to May 12, 2019.

<sup>5</sup> June 16 Order page 1.

<sup>6</sup> June 16 Order page 2.

<sup>7</sup> June 16 Order page 2.



energy, and other causes, and that issuance of a renewal order (*i.e.* the September 14 Order) will meet the emergency and serve the public interest for another 90 renewal period (*i.e.* from September 14, 2017 to December 13, 2017).

In the September 14 Order, the Secretary determined “that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy.”<sup>8</sup> The Secretary granted PJM’s August 24 Application allowing operation of Yorktown Units 1 and 2, with certain modifications, for an additional 90-day period to expire on December 13, 2017.<sup>9</sup> The Secretary’s directives required PJM and Dominion to “exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 and Yorktown Unit 2” consistent with “good utility practices” and in compliance with the dispatch methodology.<sup>10</sup>

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<sup>8</sup> September 14 Order page 1

<sup>9</sup> September 14 Order page 1

<sup>10</sup> September 14 Order page 2, paragraphs A and B. PJM has a detailed registration process as applied to demand response resources which are serving as capacity resources. PJM would utilize that information in applying this provision recognizing that: (i) the amount of registered demand response resources on the peninsula is limited; and (ii) during the renewal period covered by this application, certain demand response resources are available to PJM only in the summer period during the period. PJM has catalogued behind the meter resources based on data provided by the United States Energy Information Administration (“EIA”), Dominion and other sources. Although behind the meter resources are not subject to PJM’s direction, PJM works with Dominion to seek their assistance pursuant to the existing dispatch methodology. However, the DOE’s directive that PJM and Dominion Energy Virginia exhaust reasonably and practically available demand response and/or behind-the-meter resources applies only if exhausting such resources would lessen the need to operate the Yorktown Units 1 and/or 2 for reliability of the grid consistent with the dispatch methodology, PJM’s Governing Agreements and good utility practices. For example, if demand response and/or behind-the-meter resources would not provide needed reactive support, or otherwise not lessen the need to operate the Yorktown units for reliability, such resources would not be “reasonably and practically available” and operating the resources would not be consistent with the dispatch methodology, PJM’s Governing Agreements and good utility practices.



The September 14 Order directed PJM and Dominion Energy Virginia to report every two weeks during the term of the September 14 Order all dates on which Yorktown Units 1 and/or 2 are operated and associated air emissions and water usages for those dates.<sup>11</sup> The Secretary also directed reporting in the event the outage schedule or estimates changes from those presented in the August 24 Application. PJM and Dominion Energy Virginia submitted reports on September 28, 2017, August 22, 2017 and November 10, 2017, on the operation of Yorktown Units 1 and/or 2, and a report on October 12, 2017 revising the Skiffs Creek Transmission Project construction schedule and providing associated emission estimates.

The September 14 Order stated that “(i)f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before (the September 14 Order) expires.”<sup>12</sup> As conditions creating the emergency remain substantially unchanged, this renewal application is due on November 29, 2017.

#### **Renewal Request**

As stated in the June 13 Application as revised by the August 24 Application, the Skiffes Creek Transmission Project was expected to be completed and placed into service approximately 18-20 months after receipt of all applicable permits. With issuance of the U.S. Army Corps of Engineers’ (“Army Corps”) permit on July 3, 2017, Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. As reported on October 12, 2017, the Skiffs Creek Transmission Project is scheduled to be completed May 12, 2019. Thus, given the continued extended nature of the emergency, PJM respectfully submits that the emergency as set

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<sup>11</sup> September 14 Order page 2, paragraph C.

<sup>12</sup> September 14 Order page 2, paragraph D.



forth in the June 13 Application and August 24 Application and as determined by the Secretary in the June 16 Order and September 14 continues to exist.

Therefore, PJM respectfully requests that the Secretary grant this renewal application and order the continued operation of Yorktown Units 1 and 2 to alleviate the emergency described in the June 13 Application, the August 24 Application and hereinabove prior to the expiration of the current order (*i.e.* December 13, 2017) under Section 202 (c) of the FPA. PJM request the requested renewal order provide as follows:

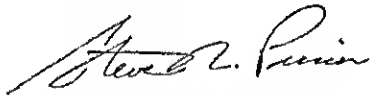
- (i) that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy and that issuance of a renewal Order will meet the emergency and serve the public interest;
- (ii) from December 13, 2017 to March 13, 2018, Dominion Energy Virginia is directed to operate Yorktown Units 1 and 2 as directed by PJM as needed to maintain grid reliability or for other local area transmission issues;
- (iii) the limitations on operations ensure, to the maximum extent practicable, consistency with applicable laws and regulations, and the reporting requirements for operations and estimated emissions ensure transparency of implementation;
- (iv) consistent with the dispatch methodology submitted by PJM on June 27, 2017, good utility practice and the PJM Tariff, PJM and Dominion Energy Virginia shall exhaust all reasonably and practically available resources including demand response and identified behind-the-meter generation resources to the extent that



such resources address maintenance of grid reliability, prior to operating Yorktown Units 1 and/or 2;<sup>13</sup>

- (v) Dominion Energy Virginia shall continue to follow the dispatch methodology submitted by PJM on June 27, 2017;
- (vi) PJM and Dominion Energy Virginia shall report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage date for those dates within ten (10) business days of such operation; and
- (vii) in the event that the outage schedule or estimates change from those presented in this renewal application, within ten (10) business days PJM and Dominion Energy Virginia shall also provide updated outages schedules and associated Yorktown Units 1 and 2 emission estimates.

Respectfully submitted,



Steven R. Pincus  
Associate General Counsel  
PJM Interconnection, L.L.C.

Craig Glazer  
VP, Federal Government Policy  
PJM Interconnection, L.L.C.

Cc (via electronic mail): Pat Hoffman, U.S. Department of Energy  
Catherine Jereza, U.S. Department of Energy  
Rakesh Batra, U.S. Department of Energy  
Michael C. Regulinski, Dominion Energy Services, Inc.  
Casey Roberts, Sierra Club Environmental Law Program

---

<sup>13</sup> See Footnote 10.



**From:** Jereza, Catherine  
**To:** Batra, Rakesh; Brian Mills; Rosenbaum, Matthew  
**Subject:** FW: OE 202c related by Wed 12/13  
**Date:** Monday, December 11, 2017 7:08:15 PM  
**Attachments:** Order 202-18-2 as of 12-11.docx  
Order 202-18-2 Summary of Findings 12-11.docx

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Do we?

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**From:** Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>  
**Date:** Monday, Dec 11, 2017, 1:40 PM  
**To:** Jereza, Catherine <[Catherine.Jereza@Hq.Doe.Gov](mailto:Catherine.Jereza@Hq.Doe.Gov)>, Bittner, Kathy (CONTR) <[Kathy.Bittner@hq.doe.gov](mailto:Kathy.Bittner@hq.doe.gov)>  
**Cc:** Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>  
**Subject:** RE: OE 202c related by Wed 12/13

(b) (5)

-----Original Message-----

**From:** Jereza, Catherine  
**Sent:** Monday, December 11, 2017 7:48 AM  
**To:** Lucas, John T. ; Dannenfels, Marty ; Doone, Alison ; Loraine, Jennifer A. ; Turenne, William ; Haus, Bob ; Menezes, Mark  
**Cc:** GC Concurrence Actions ; Faith, Jayne ; Habausky, Sarah ; Herron, Vernon ; Cunningham, Derrick ; Swisher, Vivian P. (CONTR) ; Hoffman, Patricia ; Walker, Bruce ; Mills, Brian ; Smith, Julie A (OE) ; Rosenbaum, Matthew ; Batra, Rakesh ; Konieczny, Katherine ; Fibbe, George ; Lawrence, Shamika ; Bittner, Kathy (CONTR) ; Fisher, Travis  
**Subject:** OE 202c related by Wed 12/13

(b) (5)

**BACKGROUND:** Order No. 202-17-4, the Federal Power Act section 202(c) emergency order in effect for PJM and Dominion, ensures reliability in the North Hampton Roads area of Virginia, but it expires on December 13. PJM has requested another 90-day order. By statute, these orders are limited to 90 days in duration, and PJM expects it will need consecutive 202(c) orders through May 2019. In the renewal order, the Department of Energy repeats most of the terms of the current order, mainly requiring that PJM direct the operation of two coal-fired generation units owned by Dominion as needed to address reliability issues. The purpose is to avoid load shedding in the impacted area, which could extend to 150,000 customers including critical infrastructure facilities. This renewal order cross-references a Summary of Findings explaining both the rationale for and legality of the decision to renew Order No. 202-17-4 for another 90 days.

**RECOMMENDATION:** (b) (5)

Thank you!  
Katie



Catherine Jereza  
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance  
Office of Electricity Delivery & Energy Reliability  
U.S. Department of Energy  
(o) 202.586.0334  
(c)(b) (6)

Shamika Lawrence  
Shamika.Lawrence@hq.doe.gov  
202.586.4666

\*\* Please contact Shamika for all meeting and scheduling requests. \*\*



**From:** [Drake, Christopher](#)  
**To:** [Fickel, Louise](#); [Batra, Rakesh](#)  
**Cc:** [Konieczny, Katherine](#); [Mills, Brian](#); [Rosenbaum, Matthew](#)  
**Subject:** RE: PJM OE 202c related  
**Date:** Thursday, December 14, 2017 1:40:33 PM

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Three of the documents Rakesh sent (CX, Order 202-18-2, and the Summary of Findings) are in addition to what I sent you earlier today. The fourth document is the same Renewal Application that you posted two weeks ago. Thank you for checking!

**Chris Drake**

Attorney-Adviser

U.S. Department of Energy, Office of General Counsel

Office of Electricity & Fossil Energy (GC-76)

Forrestal North, Room 6B-256

Tel. 202.586.2919

[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)

**This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.**

**From:** Fickel, Louise

**Sent:** Thursday, December 14, 2017 1:38 PM

**To:** Batra, Rakesh

**Cc:** Konieczny, Katherine ; Mills, Brian ; Drake, Christopher ; Rosenbaum, Matthew

**Subject:** RE: PJM OE 202c related

Thanks, Rakesh. Chris sent me four documents (b) (5)

Louise

**From:** Batra, Rakesh

**Sent:** Thursday, December 14, 2017 1:36 PM

**To:** Fickel, Louise <[Louise.Fickel@Hq.Doe.Gov](mailto:Louise.Fickel@Hq.Doe.Gov)>

**Cc:** Konieczny, Katherine <[Katherine.Konieczny@Hq.Doe.Gov](mailto:Katherine.Konieczny@Hq.Doe.Gov)>; Mills, Brian <[Brian.Mills@hq.doe.gov](mailto:Brian.Mills@hq.doe.gov)>; Drake, Christopher <[Christopher.Drake@hq.doe.gov](mailto:Christopher.Drake@hq.doe.gov)>; Rosenbaum, Matthew <[Matthew.Rosenbaum@hq.doe.gov](mailto:Matthew.Rosenbaum@hq.doe.gov)>

**Subject:** PJM OE 202c related

**Importance:** High

Louise:

Please find attached PJM 202(c) Order No. 202-18-2 related documents for web posting.

Kathy: (b) (5)

Thanks,

Rakesh



**From:** Bittner, Kathy (CONTR)  
**To:** Batra, Rakesh  
**Cc:** Jereza, Catherine  
**Subject:** 2017-008921 - PJM renewal request  
**Date:** Friday, December 01, 2017 2:03:39 PM  
**Attachments:** 2017-008921 - Incoming.pdf

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Good afternoon Rakesh,

I wasn't sure if you and Katie have received this correspondence already, but wanted to make sure. (b) (5)

Thanks,

Kathy Bittner  
Correspondence Specialist  
ICF, Contractor for U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Phone: (202) 287-5613  
Email: kathy.bittner@hq.doe.gov



**Johnsen, Steven (MA)**

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**From:** Pincus, Steven <Steven.Pincus@pjm.com>  
**Sent:** Wednesday, November 29, 2017 4:13 PM  
**To:** Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine  
**Cc:** Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Michael Regulinski (Services - 6); casey.roberts@sierraclub.org; Robinson, Evelyn  
**Subject:** Order No. 202-17-4 Renewal Application Filing  
**Attachments:** DOE Order 202-17-4 PJM Renewal Application Letter 11-29-17.pdf

Dear Secretary Perry:

PJM respectfully submits for filing a ninety (90) day Renewal Application in accordance with Section 202(c) of the Federal Power Act, the Department of Energy's Rules of Practice and Procedure and Order No. 202-17-4.

Please contact me if you have any questions.

Thank you for your consideration.

Respectfully,

Steven R. Pincus  
Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | [Steven.Pincus@pjm.com](mailto:Steven.Pincus@pjm.com)  
PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

11/29/2017 4:13 PM



**From:** Bittner, Kathy (CONTR)  
**To:** Jereza, Catherine; Batra, Rakesh  
**Subject:** RE: 2017-008921 - PJM renewal request  
**Date:** Friday, December 01, 2017 2:14:43 PM

---

Thanks Katie.

-----Original Message-----

**From:** Jereza, Catherine  
**Sent:** Friday, December 01, 2017 2:14 PM  
**To:** Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Subject:** RE: 2017-008921 - PJM renewal request

Hi Kathy - The order must be issued on or before December 13, which is a Wed. (b) (5)

Thanks  
Katie

-----Original Message-----

**From:** Bittner, Kathy (CONTR)  
**Sent:** Friday, December 01, 2017 2:04 PM  
**To:** Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>  
**Cc:** Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>  
**Subject:** 2017-008921 - PJM renewal request

Good afternoon Rakesh,

I wasn't sure if you and Katie have received this correspondence already, but wanted to make sure. (b) (5)

Thanks,

Kathy Bittner  
Correspondence Specialist  
ICF, Contractor for U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Phone: (202) 287-5613  
Email: kathy.bittner@hq.doe.gov



**From:** Michael Regulinski  
**To:** Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine  
**Cc:** Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; casey.roberts@sierraclub.org; Robinson, Evelyn; Pincus, Steven  
**Subject:** Order No. 202-17-4 Report on Yorktown Operations  
**Date:** Friday, December 01, 2017 3:12:42 PM  
**Attachments:** Attachment 1 Yorktown Hourly Emissions Data VALUES 2015 thru 2017.xlsx  
2017-12-01 Dominion Energy letter to Secretary Perry.pdf

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Please see attached Yorktown Report requested by DOE staff submitted by PJM Interconnection and Dominion Energy Virginia. Please let me know if you have any questions. Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

tieline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

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Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Name	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/Hr	Common Stack NOx Lb/Hr	Common Stack SO <sub>2</sub> (Lb/Hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal transfer (lb/mmBtu)	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-02-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-03-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-04-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Data	Date/Time	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM4-10 (Lb/Hr)	Leak (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-04-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-04-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	01-05-2015 20	1	1	14.7	0.0000	0.0	0.0	0.1	0.0	0.1255	0.01255	1.67E-06	3.3068	3.31E-07	0.004781	0.000598
	01-05-2015 21	0	0	15.1	0.0000	0.0	1.5	1.00	0.59	0.1255	1.84485	0.000246	3.3068	4.86E-05	0.702789	0.087849
	01-05-2015 22	0	0	63.0	0.0063	0.0	1.6	1.00	0.50	0.1255	1.89505	0.000253	3.3068	4.99E-05	0.721912	0.090239
	01-05-2015 23	0	0	165.8	0.0247	4.1	17.0	1.00	6.61	0.1255	7.9065	0.001054	3.3068	0.000208	3.011952	0.376494
	01-06-2015 00	0	0	168.1	0.0327	5.5	17.2	1.00	6.70	0.1255	21.09655	0.002813	3.3068	0.000556	8.036653	1.004582
	01-06-2015 01	0	0	168.8	0.0367	6.2	17.3	1.00	6.73	0.1255	21.1844	0.002825	3.3068	0.000558	8.07012	1.008765
	01-06-2015 02	0	0	167.7	0.0400	6.7	17.2	1.00	6.68	0.1255	21.04635	0.002806	3.3068	0.000555	8.01753	1.002191
	01-06-2015 03	0	0	165.3	0.0417	6.9	17.0	1.00	6.59	0.1255	20.74515	0.002766	3.3068	0.000547	7.902789	0.987849
	01-06-2015 04	0	0	163.7	0.0422	6.9	16.8	1.00	6.52	0.1255	20.54435	0.002739	3.3068	0.000541	7.826295	0.978287
	01-06-2015 05	0	0	163.5	0.0428	7.0	16.8	1.00	6.51	0.1255	20.51925	0.002736	3.3068	0.000541	7.816733	0.977092
	01-06-2015 06	0	0	180.3	0.0488	8.8	18.5	1.00	7.18	0.1255	22.62765	0.003017	3.3068	0.000596	8.61992	1.07749
	01-06-2015 07	0	0	178.7	0.0481	8.6	18.3	1.00	7.12	0.1255	22.42685	0.00299	3.3068	0.000591	8.543426	1.067928
	01-06-2015 08	0	0	199.3	0.0522	10.4	20.5	1.00	7.94	0.1255	25.01215	0.003335	3.3068	0.000659	9.528287	1.191036
	01-06-2015 09	0	0	202.0	0.0520	10.5	20.7	1.00	8.05	0.1255	25.351	0.00338	3.3068	0.000668	9.657371	1.207171
	01-06-2015 10	0	0	208.6	0.05930	10.6	20.7	1.00	8.01	0.1255	25.23805	0.003365	3.3068	0.000665	9.614343	1.201793
	01-06-2015 11	0	0	208.6	0.0508	10.6	21.4	1.00	8.31	0.1255	26.1793	0.003491	3.3068	0.00069	9.972908	1.246614
	01-06-2015 12	0	0	226.5	0.0552	12.5	23.2	1.00	9.02	0.1255	28.42575	0.00379	3.3068	0.000749	10.82869	1.353586
	01-06-2015 13	0	16	416.3	0.2160	89.9	42.7	1.00	16.59	0.1255	52.24565	0.006966	3.3068	0.001377	19.90279	2.487849
	01-06-2015 14	0	66	649.4	0.2670	173.4	66.6	1.00	25.87	0.1255	81.4997	0.010866	3.3068	0.002147	31.04701	3.880876
	01-06-2015 15	0	99	980.1	0.3400	333.2	100.6	1.00	39.05	0.1255	123.0026	0.0164	3.3068	0.003241	46.85737	5.857171
	01-06-2015 16	31	118	1628.4	0.4490	731.2	167.1	1.00	64.88	0.1255	204.3642	0.027248	3.3068	0.005385	77.85179	9.781474
	01-06-2015 17	92	146	2276.2	0.4410	1003.8	233.5	1.00	90.69	0.1255	285.6631	0.038088	3.3068	0.007527	108.8223	13.60279
	01-06-2015 18	99	166	2472.5	0.4610	1139.8	253.7	1.00	98.51	0.1255	310.2988	0.041373	3.3068	0.008176	118.2072	14.7759
	01-06-2015 19	133	167	2771.1	0.4960	1374.5	284.3	1.00	110.40	0.1255	347.7731	0.046369	3.3068	0.009163	132.4829	16.56036
	01-06-2015 20	153	161	2834.1	0.4970	1408.5	290.8	1.00	112.91	0.1255	355.6796	0.047423	3.3068	0.009372	135.4948	16.93685



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Name	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> (Lb/mmBtu)	Common Stack SO <sub>2</sub> (Lb/Hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Cost \$/mwhr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-06-2015 21	109	129	2176.1	0.5410	1.9878	4325.7	223.3	1.00	86.70	0.1255	273.1006	0.036413	3.3068	0.007196	104.0367	13.00458
	01-06-2015 22	102	103	1896.0	0.4830	1.9656	3726.7	194.5	1.00	75.54	0.1255	237.948	0.091726	3.3068	0.00627	90.64542	11.39068
	01-06-2015 23	98	100	1859.4	0.4730	1.8824	3500.2	190.8	1.00	74.08	0.1255	233.3547	0.031113	3.3068	0.006149	88.89562	11.11195
	01-07-2015 00	105	109	1979.4	0.4540	1.8287	3619.8	203.1	1.00	78.36	0.1255	248.4147	0.033121	3.3068	0.006545	94.63267	11.82908
	01-07-2015 01	105	107	1974.8	0.4570	1.7623	3480.1	202.6	1.00	78.68	0.1255	247.8374	0.033044	3.3068	0.00653	94.41275	11.80159
	01-07-2015 02	104	105	1936.2	0.4640	1.7451	3378.8	198.7	1.00	77.34	0.1255	242.9931	0.032399	3.3068	0.006403	92.56733	11.57092
	01-07-2015 03	110	109	2048.9	0.4440	1.7334	3551.5	210.2	1.00	81.63	0.1255	257.137	0.034284	3.3068	0.006775	97.95538	12.24442
	01-07-2015 04	121	130	2314.7	0.4630	1.7569	4066.8	237.5	1.00	92.22	0.1255	290.4949	0.038732	3.3068	0.007654	110.6629	13.83287
	01-07-2015 05	140	155	2669.3	0.5150	1.8052	4818.7	273.9	1.00	106.35	0.1255	334.9972	0.044666	3.3068	0.008827	127.6159	15.95199
	01-07-2015 06	148	162	2829.0	0.5070	1.8233	5158.1	290.3	1.00	112.71	0.1255	355.0995	0.047338	3.3068	0.009355	135.251	16.90637
	01-07-2015 07	159	172	3006.6	0.5110	1.8329	5510.9	308.5	1.00	119.78	0.1255	377.3283	0.05031	3.3068	0.009942	143.7418	17.96773
	01-07-2015 08	160	173	3018.2	0.5190	1.8399	5553.1	309.4	1.00	120.25	0.1255	378.7841	0.050504	3.3068	0.009981	144.2964	18.03705
	01-07-2015 09	160	172	3015.3	0.5230	1.8396	5546.8	309.7	1.00	120.13	0.1255	378.4202	0.050455	3.3068	0.009971	144.1578	18.01972
	01-07-2015 10	160	172	3010.8	0.5240	1.8308	5512.2	308.9	1.00	119.95	0.1255	377.8554	0.05038	3.3068	0.009956	143.9426	17.99283
	01-07-2015 11	160	172	3011.3	0.5160	1.8154	5466.7	309.0	1.00	119.97	0.1255	377.9182	0.050388	3.3068	0.009958	143.9665	17.99582
	01-07-2015 12	160	173	3032.3	0.5150	1.7895	5426.3	311.1	1.00	120.81	0.1255	380.5537	0.05074	3.3068	0.010027	144.9705	18.12131
	01-07-2015 13	160	173	3039.7	0.5160	1.7723	5387.3	311.9	1.00	121.10	0.1255	381.4824	0.050864	3.3068	0.010052	145.3243	18.16554
	01-07-2015 14	160	173	3036.5	0.5190	1.7696	5373.3	311.5	1.00	120.98	0.1255	381.0808	0.05081	3.3068	0.010041	145.1713	18.14641
	01-07-2015 15	160	173	3028.2	0.5210	1.7833	5415.2	310.7	1.00	120.65	0.1255	380.0391	0.050671	3.3068	0.010014	144.7745	18.09681
	01-07-2015 16	160	173	3028.9	0.5200	1.8036	5463.0	310.8	1.00	120.67	0.1255	380.127	0.050683	3.3068	0.010016	144.808	18.101
	01-07-2015 17	160	173	3033.5	0.5210	1.7530	5317.6	311.2	1.00	120.86	0.1255	380.7043	0.05076	3.3068	0.010031	145.0279	18.12849
	01-07-2015 18	160	173	3017.6	0.5150	1.7394	5248.8	309.6	1.00	120.22	0.1255	378.7088	0.050494	3.3068	0.009979	144.2677	18.03347
	01-07-2015 19	160	172	3017.2	0.5130	1.7352	5235.4	309.6	1.00	120.21	0.1255	378.6586	0.050487	3.3068	0.009977	144.2486	18.03108
	01-07-2015 20	160	172	3022.7	0.5180	1.6733	5057.9	310.1	1.00	120.43	0.1255	379.3489	0.050579	3.3068	0.009995	144.5116	18.06394
	01-07-2015 21	160	171	3015.7	0.4970	1.6733	5046.1	309.4	1.00	120.15	0.1255	378.4704	0.050462	3.3068	0.009972	144.1769	18.02211
	01-07-2015 22	125	171	2706.1	0.5070	1.6619	4497.3	277.6	1.00	107.81	0.1255	339.6156	0.045281	3.3068	0.008948	129.3753	16.17191
	01-07-2015 23	95	171	2452.4	0.5060	1.6490	4044.1	251.6	1.00	97.71	0.1255	307.7762	0.041036	3.3068	0.00811	117.2462	14.65578
	01-08-2015 00	91	171	2434.7	0.5100	1.6447	4004.3	249.8	1.00	97.00	0.1255	305.5549	0.04074	3.3068	0.008051	116.4	14.55
	01-08-2015 01	89	171	2413.0	0.5140	1.6453	3970.1	247.6	1.00	96.14	0.1255	302.8315	0.040377	3.3068	0.007979	115.3625	14.42032
	01-08-2015 02	89	172	2432.6	0.5210	1.6321	3970.2	249.6	1.00	96.92	0.1255	305.2913	0.040705	3.3068	0.008044	116.2996	14.53745
	01-08-2015 03	89	173	2418.3	0.5290	1.6453	3978.9	248.1	1.00	96.35	0.1255	303.4967	0.040466	3.3068	0.007997	115.6159	14.45199
	01-08-2015 04	89	174	2450.8	0.5320	1.6381	4014.6	251.5	1.00	97.64	0.1255	307.5754	0.041009	3.3068	0.008104	117.1697	14.64622
	01-08-2015 05	91	173	2460.3	0.4890	1.6239	3995.3	252.4	1.00	98.02	0.1255	308.7677	0.041168	3.3068	0.008136	117.6239	14.70299
	01-08-2015 06	132	174	2837.2	0.4940	1.7074	4844.2	291.1	1.00	113.04	0.1255	356.0686	0.047475	3.3068	0.009382	135.643	16.95538
	01-08-2015 07	157	175	3039.6	0.5020	1.8033	5482.9	311.9	1.00	121.10	0.1255	381.4698	0.050862	3.3068	0.010051	145.3195	18.16494
	01-08-2015 08	62	174	2083.2	0.5220	1.7969	3743.4	213.7	1.00	93.00	0.1255	261.4416	0.034858	3.3068	0.006889	99.59522	12.4494
	01-08-2015 09	0	176	1495.2	0.5480	1.7857	2670.0	153.4	1.00	59.57	0.1255	187.6476	0.025019	3.3068	0.004944	71.48367	8.935458
	01-08-2015 10	0	176	1508.1	0.5400	1.7714	2671.5	154.7	1.00	60.08	0.1255	189.2666	0.025235	3.3068	0.004987	72.1004	9.01255
	01-08-2015 11	0	175	1499.6	0.5470	1.7663	2648.7	153.0	1.00	59.75	0.1255	188.1998	0.025093	3.3068	0.004959	71.69402	8.961753
	01-08-2015 12	0	175	1559.3	0.5340	1.6878	2631.8	160.9	1.00	62.12	0.1255	195.6922	0.026092	3.3068	0.005156	74.54821	9.318526
	01-08-2015 13	0	175	1582.7	0.5340	1.6206	2565.0	162.4	1.00	63.06	0.1255	198.6289	0.026483	3.3068	0.005234	75.66693	9.458367
	01-08-2015 14	52	172	2019.3	0.5140	1.7353	3504.1	207.2	1.00	80.45	0.1255	253.4222	0.033789	3.3068	0.006677	96.54024	12.06753
	01-08-2015 15	97	169	2464.7	0.4730	1.8752	4621.7	252.9	1.00	98.20	0.1255	309.3199	0.041242	3.3068	0.00815	117.8343	14.72928
	01-08-2015 16	108	152	2399.5	0.4870	1.8846	4522.2	246.2	1.00	95.60	0.1255	301.1373	0.040151	3.3068	0.007935	114.7171	14.33964
	01-08-2015 17	152	169	2913.9	0.4860	1.8592	5417.4	299.0	1.00	116.09	0.1255	365.6945	0.048758	3.3068	0.009636	139.31	17.41375
	01-08-2015 18	155	173	2987.2	0.4880	1.8179	5430.3	306.5	1.00	119.01	0.1255	374.8936	0.049985	3.3068	0.009878	142.8143	17.85179
	01-08-2015 19	156	174	2987.2	0.4880	1.7907	5349.2	306.5	1.00	119.01	0.1255	374.8936	0.049985	3.3068	0.009878	142.8143	17.85179



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
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DATE	Hour	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/mmBtu	Common Stack NOx Lb/hr	Common Stack SO <sub>2</sub> (Lb/Hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal Inlet/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-08-2015	20	155	174	2982.5	0.4900	1461.4	17593	5247.1	306.0	1.00	118.82	0.1255	374.3038	0.049906	3.3068	0.009862	142.5896	17.82371
01-08-2015	21	153	175	2974.6	0.4950	1472.4	17258	5133.5	305.2	1.00	118.51	0.1255	373.3123	0.049774	3.3068	0.009836	142.212	17.77649
01-08-2015	22	154	173	2967.3	0.4970	1474.7	16590	5041.4	304.4	1.00	118.22	0.1255	372.3962	0.049652	3.3068	0.009812	141.8629	17.73287
01-08-2015	23	142	147	2593.8	0.5340	1385.1	16509	4385.8	266.1	1.00	103.34	0.1255	325.5219	0.043402	3.3068	0.008577	124.0064	15.5008
01-09-2015	00	131	147	2517.0	0.5400	1359.2	16819	4233.4	258.2	1.00	100.28	0.1255	315.8835	0.042117	3.3068	0.008323	120.3347	15.04183
01-09-2015	01	130	145	2494.6	0.5470	1364.5	16591	4138.9	255.9	1.00	99.39	0.1255	313.0723	0.041742	3.3068	0.008249	119.2637	14.90797
01-09-2015	02	117	142	2375.3	0.5620	1334.9	16425	3901.4	243.7	1.00	94.63	0.1255	298.1002	0.039746	3.3068	0.007855	113.5602	14.19502
01-09-2015	03	123	140	2403.2	0.5560	1336.2	16456	3954.6	246.6	1.00	95.75	0.1255	301.6016	0.040213	3.3068	0.007947	114.894	14.36375
01-09-2015	04	111	136	2254.6	0.5960	1343.7	16424	3703.0	231.3	1.00	89.82	0.1255	282.9523	0.037726	3.3068	0.007455	107.7896	13.47371
01-09-2015	05	109	135	2245.3	0.5770	1343.7	16303	3660.6	230.4	1.00	89.45	0.1255	281.7952	0.037571	3.3068	0.007425	107.345	13.41813
01-09-2015	06	140	154	2692.1	0.5190	1397.2	16440	4425.8	276.2	1.00	107.25	0.1255	337.8586	0.045047	3.3068	0.008902	128.706	16.08825
01-09-2015	07	156	175	3007.4	0.4920	1479.6	16434	4942.4	308.6	1.00	119.82	0.1255	377.4287	0.050323	3.3068	0.009945	143.7801	17.97251
01-09-2015	08	160	176	3057.3	0.4870	1483.9	16367	5003.9	313.7	1.00	121.80	0.1255	383.6912	0.051158	3.3068	0.01011	146.1657	18.27072
01-09-2015	09	161	176	3065.7	0.4950	1517.5	16416	5032.8	314.5	1.00	122.14	0.1255	384.7454	0.051299	3.3068	0.010138	146.5673	18.32092
01-09-2015	10	160	175	3059.3	0.5020	1535.8	16457	5034.8	313.9	1.00	121.88	0.1255	383.9422	0.051191	3.3068	0.010116	146.2614	18.28267
01-09-2015	11	142	151	2646.9	0.5370	1421.4	16567	4985.0	271.6	1.00	105.45	0.1255	332.1476	0.044291	3.3068	0.008753	126.545	15.31813
01-09-2015	12	134	147	2570.1	0.5260	1351.9	16597	4765.6	263.7	1.00	102.39	0.1255	322.5476	0.043006	3.3068	0.008499	122.8733	15.35916
01-09-2015	13	117	127	2252.5	0.5900	1329.0	16558	3729.8	231.1	1.00	89.74	0.1255	282.6888	0.037691	3.3068	0.007449	107.6892	13.46116
01-09-2015	14	117	119	2212.5	0.5930	1321.6	16531	3657.4	227.0	1.00	88.35	0.1255	277.6688	0.037022	3.3068	0.007316	105.7769	13.22211
01-09-2015	15	117	118	2180.9	0.6060	1321.6	16673	3636.3	223.8	1.00	86.99	0.1255	273.703	0.036493	3.3068	0.007212	104.2661	13.0327
01-09-2015	16	122	128	2363.9	0.5690	1339.4	16567	3899.6	241.5	1.00	93.78	0.1255	295.4145	0.039388	3.3068	0.007784	112.5371	14.06713
01-09-2015	17	149	161	2875.8	0.5060	1455.2	16760	4819.7	295.1	1.00	114.57	0.1255	360.9129	0.048121	3.3068	0.00951	137.4884	17.18606
01-09-2015	18	156	169	3013.1	0.4950	1491.5	16864	5081.4	309.1	1.00	120.04	0.1255	378.1441	0.050418	3.3068	0.009664	144.0526	18.00657
01-09-2015	19	153	168	2978.2	0.4920	1465.3	16894	5031.3	305.6	1.00	118.65	0.1255	373.7641	0.049834	3.3068	0.009848	142.3841	17.79801
01-09-2015	20	145	151	2754.6	0.4850	1336.0	16792	4625.5	282.6	1.00	109.75	0.1255	345.7023	0.046093	3.3068	0.009109	131.694	16.46175
01-09-2015	21	149	166	2908.8	0.4720	1373.0	16376	4909.0	298.4	1.00	115.89	0.1255	365.0544	0.048673	3.3068	0.009619	139.0661	17.38327
01-09-2015	22	141	148	2658.7	0.4720	1254.9	16823	4472.6	272.8	1.00	105.92	0.1255	333.6669	0.044488	3.3068	0.008792	127.1092	15.88865
01-09-2015	23	127	145	2522.7	0.5120	1291.6	16839	4248.1	258.8	1.00	100.51	0.1255	316.5989	0.042213	3.3068	0.008342	120.6072	15.0759
01-10-2015	00	126	142	2487.2	0.5020	1248.6	16830	4186.0	255.2	1.00	99.09	0.1255	312.1436	0.041618	3.3068	0.008225	118.91	14.86375
01-10-2015	01	130	148	2570.3	0.5060	1300.6	16895	4342.4	263.7	1.00	102.40	0.1255	322.5727	0.043009	3.3068	0.008499	122.8829	15.36036
01-10-2015	02	124	141	2455.4	0.5100	1252.3	16942	4160.0	251.9	1.00	97.82	0.1255	308.1527	0.041086	3.3068	0.008119	117.3896	14.67371
01-10-2015	03	132	145	2560.3	0.5020	1285.3	16870	4319.1	262.7	1.00	102.00	0.1255	321.3177	0.042842	3.3068	0.008466	122.4048	15.3006
01-10-2015	04	147	160	2824.3	0.4850	1369.8	16838	4761.3	289.8	1.00	112.52	0.1255	354.4497	0.047259	3.3068	0.009339	135.0263	16.87829
01-10-2015	05	145	157	2797.2	0.4750	1328.7	16640	4654.5	287.0	1.00	111.44	0.1255	351.0486	0.046806	3.3068	0.00925	133.7307	16.71633
01-10-2015	06	153	168	2940.3	0.4790	1408.4	16736	4920.8	301.7	1.00	117.14	0.1255	369.0077	0.0492	3.3068	0.009723	140.5721	17.57151
01-10-2015	07	154	169	2968.4	0.4840	1436.7	16688	4953.8	304.6	1.00	118.26	0.1255	372.5342	0.04967	3.3068	0.009816	141.9155	17.73944
01-10-2015	08	155	175	3006.7	0.4820	1449.2	16771	5042.5	308.5	1.00	119.79	0.1255	377.3409	0.050311	3.3068	0.009942	143.7466	17.96833
01-10-2015	09	155	175	3006.9	0.4850	1458.3	16774	5043.9	308.5	1.00	119.80	0.1255	377.366	0.050315	3.3068	0.009943	143.7562	17.96952
01-10-2015	10	156	175	3012.3	0.4880	1470.0	16766	5050.3	309.1	1.00	120.01	0.1255	378.0437	0.050405	3.3068	0.009961	144.0143	18.00179
01-10-2015	11	155	174	2993.4	0.4840	1448.8	16819	5094.5	307.1	1.00	119.26	0.1255	375.6717	0.050089	3.3068	0.009898	143.1108	17.88884
01-10-2015	12	128	147	2501.9	0.5290	1323.5	16807	4204.9	256.7	1.00	99.68	0.1255	313.9885	0.041864	3.3068	0.008273	119.6127	14.95159
01-10-2015	13	123	139	2400.1	0.5580	1339.3	16779	4077.1	246.3	1.00	95.62	0.1255	301.2126	0.040161	3.3068	0.007957	114.7458	14.34323
01-10-2015	14	108	116	2079.9	0.5890	1225.1	16652	3463.5	213.4	1.00	82.86	0.1255	261.0275	0.034803	3.3068	0.006878	99.43745	12.42968
01-10-2015	15	102	109	1972.7	0.5610	1106.7	16694	3293.2	202.4	1.00	78.59	0.1255	247.5739	0.033009	3.3068	0.006523	94.31235	11.78904
01-10-2015	16	115	128	2263.6	0.5520	1249.5	16838	3845.4	232.2	1.00	90.18	0.1255	284.0818	0.037877	3.3068	0.007485	108.2199	13.52749
01-10-2015	17	151	167	2934.7	0.4910	1440.9	16887	4985.3	301.1	1.00	116.92	0.1255	368.3049	0.049107	3.3068	0.009704	140.3044	17.53805
01-10-2015	18	154	169	2962.3	0.4760	1410.1	16910	5009.3	303.9	1.00	118.02	0.1255	371.7687	0.049568	3.3068	0.009796	141.6239	17.70299



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

SD550-C23 Date	Date/Hour	Y101 Gross		Common Stack Heat Input (mmBtu)	Common Stack NOx-Lb/MMBtu	Common Stack SO2 (Lb/MMBtu)	Common Stack SO2 (Lb-Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
		Load MW	Value																
01-10-2015	19	154	169	2959.4	0.4760	1408.7	1.6931	5010.5	303.6	1.00	117.90	0.1255	371.4047	0.04952	3.3068	0.009786	141.4853	17.68566	
	20	154	169	2959.7	0.4720	1397.0	1.7029	5040.0	303.7	1.00	117.92	0.1255	371.4424	0.049525	3.3068	0.009787	141.4996	17.68745	
	21	154	169	2958.1	0.4780	1414.0	1.7091	5055.6	303.5	1.00	117.85	0.1255	371.2416	0.049498	3.3068	0.009782	141.4231	17.67789	
	22	159	173	3031.4	0.4710	1427.8	1.7122	5190.5	311.0	1.00	120.77	0.1255	380.4407	0.050725	3.3068	0.010024	144.9275	18.11594	
	23	148	167	2884.4	0.4570	1313.2	1.7115	4965.6	295.9	1.00	114.92	0.1255	361.9922	0.048265	3.3068	0.009538	137.8996	17.23745	
	01-11-2015	00	152	158	2797.2	0.4680	1309.1	1.7390	4864.4	287.0	1.00	111.44	0.1255	351.0486	0.046806	3.3068	0.00925	133.7307	16.71633
	01	159	170	3004.3	0.4520	1357.9	1.7304	5198.7	308.2	1.00	119.69	0.1255	377.0397	0.050271	3.3068	0.009935	143.6319	17.95398	
	02	160	175	3019.7	0.4550	1374.0	1.7380	5249.2	309.8	1.00	120.31	0.1255	378.9724	0.050579	3.3068	0.009985	144.3681	18.04602	
	03	160	175	3033.6	0.4560	1383.3	1.7280	5242.2	311.2	1.00	120.86	0.1255	380.7168	0.050761	3.3068	0.010031	145.0327	18.12908	
	04	160	175	3039.1	0.4570	1388.9	1.7243	5240.2	311.8	1.00	121.08	0.1255	381.4071	0.050853	3.3068	0.01005	145.2956	18.16195	
	05	160	174	3009.3	0.4580	1378.3	1.7310	5209.0	308.8	1.00	119.89	0.1255	377.6672	0.050355	3.3068	0.009951	143.8709	17.98386	
	06	160	173	2999.3	0.4600	1379.7	1.7377	5212.0	307.7	1.00	119.49	0.1255	376.4122	0.050187	3.3068	0.009918	143.3928	17.9241	
	07	160	174	3055.2	0.4520	1381.0	1.7377	5308.9	313.5	1.00	121.72	0.1255	383.4276	0.051123	3.3068	0.010103	146.0653	18.25817	
	08	161	175	3069.5	0.4560	1399.7	1.7434	5351.5	314.9	1.00	122.29	0.1255	385.2223	0.051362	3.3068	0.01015	146.749	18.34363	
	09	160	175	3058.8	0.4600	1407.0	1.7443	5335.6	313.8	1.00	121.86	0.1255	383.8794	0.051183	3.3068	0.010115	146.2375	18.27968	
	10	145	152	2693.8	0.4700	1266.1	1.7310	4662.9	276.4	1.00	107.32	0.1255	338.0719	0.045076	3.3068	0.008908	128.7873	16.09841	



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Date	Date/Hour	YTO1 Gross Load MW Value		YTO2 Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx Lb/mmBtu		Common Stack SO2 Lb/mmBtu		Common Stack SO2 (lb/hr)		Common Stack CO2 (Tons/Hr)		Unit Operation (minutes)		Coal tons/hr		PM-10 (lb/mmBtu)		PM-10 (Lb/Hr)		Lead (lb/hr)		Mercury (lb/TBtu)		Mercury (lb/hr)		HCl (lb/hr)		HF (lb/hr)		
01-12-2015	18	157	168	2999.9	0.4500	1350.0	1.7603	5280.8	307.8	1.00	119.52	0.1255	376.4875	0.050198	3.3068	0.00992	143.4215	17.92769																
	19	152	165	2916.3	0.4610	1344.4	1.7553	5119.0	299.2	1.00	116.19	0.1255	365.9957	0.048799	3.3068	0.009644	139.4247	17.42809																
	20	135	147	2592.7	0.4780	1239.3	1.7462	4527.4	266.0	1.00	103.29	0.1255	325.3839	0.043384	3.3068	0.008573	123.9538	15.49422																
	21	125	141	2455.1	0.5170	1269.3	1.7453	4286.0	251.9	1.00	97.81	0.1255	308.1151	0.041081	3.3068	0.008118	117.3753	14.67191																
	22	126	144	2474.0	0.5120	1266.7	1.7659	4368.9	253.8	1.00	98.57	0.1255	310.487	0.041398	3.3068	0.008181	118.2789	14.78486																
	23	118	112	2141.5	0.5650	1209.9	1.7807	3813.3	219.7	1.00	85.32	0.1255	268.7583	0.035834	3.3068	0.007081	102.3825	12.79781																
	00	101	104	1919.3	0.5540	1063.3	1.7723	3401.5	196.9	1.00	76.47	0.1255	240.8722	0.032116	3.3068	0.006347	91.75936	11.46992																
	01	102	105	1950.5	0.5290	1031.8	1.7725	3457.2	200.1	1.00	77.71	0.1255	244.7878	0.032638	3.3068	0.00645	93.251	11.65637																
	02	104	107	1977.7	0.5210	1030.4	1.7699	3500.4	202.9	1.00	78.79	0.1255	248.2014	0.033093	3.3068	0.00654	94.55139	11.81892																
	03	98	100	1871.7	0.5410	1012.6	1.7580	3290.5	192.0	1.00	74.57	0.1255	234.8984	0.031319	3.3068	0.006189	89.48367	11.18546																
	04	98	99	1862.3	0.5370	1000.1	1.7564	3271.0	191.1	1.00	74.20	0.1255	233.7187	0.031162	3.3068	0.006158	89.03426	11.12928																
	05	107	110	2066.7	0.4940	1020.9	1.7361	3588.1	212.0	1.00	82.34	0.1255	259.3709	0.034582	3.3068	0.006834	98.80637	12.35083																
	06	146	161	2872.6	0.4790	1376.0	1.7303	4970.6	294.7	1.00	114.45	0.1255	360.5113	0.048067	3.3068	0.009499	137.3355	17.16693																
	07	153	168	2974.4	0.4790	1424.7	1.7129	5094.9	305.2	1.00	118.50	0.1255	373.2872	0.049771	3.3068	0.009836	142.2024	17.7753																
	08	152	167	2944.3	0.4750	1398.5	1.7117	5039.9	302.1	1.00	117.30	0.1255	369.5097	0.049267	3.3068	0.009736	140.7633	17.59542																
	09	154	168	2967.9	0.4680	1389.0	1.7046	5059.2	304.5	1.00	118.24	0.1255	372.4715	0.049662	3.3068	0.009814	141.8916	17.73645																
10	151	163	2895.6	0.4640	1343.6	1.6917	4898.6	297.1	1.00	115.36	0.1255	363.3978	0.048452	3.3068	0.009575	138.4351	17.30438																	
11	150	161	2876.4	0.4740	1363.4	1.6854	4848.0	295.1	1.00	114.60	0.1255	360.9882	0.048131	3.3068	0.009512	137.5171	17.18964																	
12	147	159	2830.5	0.4740	1341.7	1.6760	4743.8	290.4	1.00	112.77	0.1255	355.2278	0.047363	3.3068	0.00936	135.3227	16.91534																	
13	144	154	2754.9	0.4840	1333.4	1.6787	4624.6	282.7	1.00	109.76	0.1255	345.74	0.046098	3.3068	0.00911	131.7084	16.46355																	
14	134	150	2648.8	0.4950	1311.2	1.6820	4455.4	271.8	1.00	105.53	0.1255	332.4244	0.044323	3.3068	0.008759	126.6359	15.82948																	
15	146	86	2232.5	0.4650	1038.1	1.6945	3783.0	229.1	1.00	88.94	0.1255	280.1788	0.037357	3.3068	0.007382	106.7331	13.34163																	
16	154	0	1499.9	0.4230	634.5	1.7032	2554.6	153.9	1.00	59.76	0.1255	188.2375	0.025098	3.3068	0.00496	71.70837	8.963546																	
17	155	0	1462.1	0.4150	606.8	1.6901	2471.1	150.0	1.00	58.25	0.1255	183.4936	0.024465	3.3068	0.004835	69.9012	8.737649																	
18	159	0	1591.9	0.4110	654.3	1.6019	2550.0	163.3	1.00	63.42	0.1255	199.7835	0.026637	3.3068	0.005264	76.10677	9.513347																	
19	160	0	1593.6	0.4160	662.9	1.5994	2548.8	163.5	1.00	63.49	0.1255	199.9968	0.026666	3.3068	0.00527	76.18805	9.523506																	
20	160	0	1601.9	0.4280	685.6	1.6032	2568.2	164.4	1.00	63.82	0.1255	201.0385	0.026805	3.3068	0.005297	76.58486	9.573108																	
21	160	0	1587.8	0.4300	682.8	1.5981	2537.5	162.9	1.00	63.26	0.1255	199.2689	0.026569	3.3068	0.00525	75.91076	9.488845																	
22	155	0	1523.0	0.4300	654.9	1.5868	2416.7	156.3	1.00	60.68	0.1255	191.1365	0.025484	3.3068	0.005036	72.81275	9.101594																	
23	157	7	1632.1	0.4340	708.3	1.5555	2538.7	167.5	1.00	65.02	0.1255	204.8286	0.02731	3.3068	0.005397	78.02869	9.753586																	
00	157	67	2169.1	0.4370	947.9	1.6165	3506.3	222.5	1.00	86.42	0.1255	272.2221	0.036296	3.3068	0.007173	103.702	12.96275																	
01	159	112	2566.7	0.4410	1132.8	1.7134	4401.1	263.6	1.00	102.34	0.1255	322.3719	0.042982	3.3068	0.008494	122.8064	15.35080																	
02	151	158	2874.1	0.4750	1365.2	1.7280	4966.4	294.9	1.00	114.51	0.1255	360.6996	0.048093	3.3068	0.009504	137.4072	17.17599																	
03	154	164	2926.9	0.3740	1094.7	1.7436	5103.4	300.3	1.00	116.61	0.1255	367.326	0.048976	3.3068	0.009679	139.9315	17.49143																	
04	158	176	3056.2	0.3550	1085.0	1.7545	5362.1	313.6	1.00	121.76	0.1255	383.5531	0.05114	3.3068	0.010106	146.1131	18.26414																	
05	157	175	3047.6	0.3510	1069.7	1.7577	5289.6	312.7	1.00	121.42	0.1255	382.4738	0.050996	3.3068	0.010078	145.702	18.21275																	
06	160	175	3063.0	0.3530	1081.2	1.7487	5356.3	314.3	1.00	122.03	0.1255	384.4065	0.051253	3.3068	0.010129	146.4382	18.30478																	
07	161	176	3079.2	0.3520	1093.1	1.7498	5386.4	315.9	1.00	122.68	0.1255	386.4396	0.051524	3.3068	0.010182	147.2127	18.40159																	
08	161	176	3108.2	0.3550	1094.1	1.7342	5390.1	318.9	1.00	123.83	0.1255	390.0791	0.05201	3.3068	0.010278	148.5992	18.5749																	
09	161	176	3082.6	0.3530	1088.2	1.7533	5404.8	316.3	1.00	122.81	0.1255	386.8663	0.051581	3.3068	0.010193	147.3753	18.42191																	
10	160	176	3080.2	0.3530	1087.3	1.7583	5417.6	316.0	1.00	122.72	0.1255	386.5651	0.051541	3.3068	0.010186	147.2606	18.40757																	
11	159	176	3064.6	0.3450	1057.3	1.7658	5411.5	314.4	1.00	122.10	0.1255	384.6073	0.05128	3.3068	0.010134	146.5147	18.31434																	
12	160	176	3070.5	0.3460	1062.4	1.7634	5429.9	315.0	1.00	122.33	0.1255	385.3478	0.051379	3.3068	0.010153	146.7968	18.3496																	
13	160	176	3071.3	0.3440	1056.5	1.7679	5429.7	315.1	1.00	122.36	0.1255	385.4482	0.051392	3.3068	0.010156	146.8351	18.35438																	
14	160	176	3069.0	0.3350	1028.1	1.7649	5416.6	314.9	1.00	122.27	0.1255	385.1595	0.051354	3.3068	0.010148	146.725																		



Domion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
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Sub-Station Date	Date/Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack SO2 (Lb/hr)	Common Stack CO2 (Tons/hr)	Unit Operation (minutes)	Coal Instr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-14-2015 17	161	175	3073.5	0.3490	1072.7	1.7745	5453.9	315.3	1.00	122.45	0.1255	385.7243	0.051429	3.3068	0.010163	146.9402	18.36753
01-14-2015 18	161	174	3034.8	0.3550	1077.4	1.7793	5999.9	311.4	1.00	120.91	0.1255	380.8674	0.050782	3.3068	0.010035	145.09	18.19625
01-14-2015 19	161	173	3027.4	0.3550	1074.7	1.7855	5405.3	310.6	1.00	120.61	0.1255	379.9387	0.050658	3.3068	0.010011	144.7363	18.09203
01-14-2015 20	160	170	3014.8	0.3620	1091.4	1.7644	5319.2	309.3	1.00	120.11	0.1255	378.3574	0.050447	3.3068	0.009969	144.1399	18.01673
01-14-2015 21	154	170	2959.2	0.3490	1037.8	1.7589	5204.8	303.6	1.00	117.90	0.1255	371.3796	0.049516	3.3068	0.009785	141.4757	17.68446
01-14-2015 22	133	168	2749.9	0.3540	973.5	1.7360	4773.9	282.1	1.00	109.56	0.1255	345.1125	0.046014	3.3068	0.009093	131.4693	16.43967
01-14-2015 23	116	163	2570.0	0.3580	920.1	1.7388	4468.6	263.7	1.00	102.39	0.1255	322.535	0.043004	3.3068	0.008498	122.8685	15.35857
01-15-2015 00	141	153	2679.5	0.3430	919.1	1.7333	4644.4	274.9	1.00	106.75	0.1255	336.2773	0.044896	3.3068	0.00886	128.1036	16.01295
01-15-2015 01	142	153	2673.7	0.3500	935.8	1.7396	4651.3	274.3	1.00	106.52	0.1255	335.5494	0.044739	3.3068	0.008841	127.8263	15.97829
01-15-2015 02	123	131	2355.7	0.3510	826.9	1.7284	4071.6	241.7	1.00	93.85	0.1255	295.6404	0.039418	3.3068	0.00779	112.6231	14.07789
01-15-2015 03	130	131	2416.7	0.3500	845.8	1.7364	4196.4	248.0	1.00	96.28	0.1255	303.2959	0.040439	3.3068	0.007991	115.5394	14.44243
01-15-2015 04	129	131	2400.0	0.3630	871.2	1.7377	4370.5	246.2	1.00	95.62	0.1255	301.2	0.040159	3.3068	0.007936	114.741	14.34263
01-15-2015 05	148	157	2840.0	0.3470	985.5	1.7777	4906.6	291.4	1.00	113.15	0.1255	356.42	0.047522	3.3068	0.009391	135.7769	16.97211
01-15-2015 06	160	169	3024.7	0.3750	1134.3	1.7452	5278.6	310.3	1.00	120.51	0.1255	379.5999	0.050613	3.3068	0.010002	144.6072	18.0759
01-15-2015 07	161	172	3039.4	0.4010	1218.8	1.7525	5326.4	311.8	1.00	121.09	0.1255	381.4447	0.050858	3.3068	0.010051	145.31	18.16375
01-15-2015 08	158	170	3025.9	0.3920	1186.2	1.7443	5278.0	310.5	1.00	120.55	0.1255	379.7505	0.050633	3.3068	0.010006	144.6645	18.08307
01-15-2015 09	157	167	2953.5	0.3820	1128.2	1.7668	5218.2	303.0	1.00	117.67	0.1255	370.6643	0.049421	3.3068	0.009767	141.2032	17.6504
01-15-2015 10	156	161	2886.6	0.3680	1062.3	1.7739	5120.5	296.2	1.00	115.00	0.1255	362.2683	0.048302	3.3068	0.009545	138.0048	17.2506
01-15-2015 11	129	124	2319.0	0.3640	844.1	1.7648	4092.5	237.9	1.00	92.39	0.1255	291.0345	0.038804	3.3068	0.007668	110.8685	13.85857
01-15-2015 12	103	104	1998.5	0.4110	796.7	1.7646	3420.6	198.9	1.00	77.23	0.1255	243.2818	0.032437	3.3068	0.00641	92.67729	11.58466
01-15-2015 13	111	118	2149.9	0.3630	780.4	1.7537	3770.2	220.6	1.00	85.65	0.1255	269.8125	0.035974	3.3068	0.007109	102.7841	12.84801
01-15-2015 14	99	104	1920.5	0.3980	764.4	1.7662	3991.9	197.0	1.00	76.51	0.1255	241.0228	0.032136	3.3068	0.006351	91.81673	11.47709
01-15-2015 15	104	114	2046.5	0.3740	765.4	1.7663	3614.8	210.0	1.00	81.53	0.1255	256.8358	0.034244	3.3068	0.006767	97.84064	12.23008
01-15-2015 16	98	101	1895.2	0.3930	744.8	1.7655	3346.0	194.5	1.00	75.51	0.1255	237.8476	0.031713	3.3068	0.006267	90.60717	11.3259
01-15-2015 17	123	135	2420.7	0.3640	881.1	1.7836	4317.6	248.4	1.00	96.44	0.1255	303.7979	0.040506	3.3068	0.008005	115.7307	14.46633
01-15-2015 18	161	161	2864.0	0.3810	1051.2	1.7810	5100.8	293.8	1.00	114.10	0.1255	359.432	0.047924	3.3068	0.009471	136.9243	17.11554
01-15-2015 19	151	152	2771.1	0.3690	1022.5	1.7789	4929.5	284.3	1.00	110.40	0.1255	347.7731	0.046369	3.3068	0.009163	132.4829	16.56036
01-15-2015 20	146	149	2676.8	0.3640	974.4	1.7788	4761.4	274.6	1.00	106.65	0.1255	335.9384	0.044791	3.3068	0.008852	127.9745	15.99681
01-15-2015 21	108	109	2016.7	0.5390	1087.0	1.7787	3587.1	206.9	1.00	80.35	0.1255	253.0959	0.033746	3.3068	0.006669	96.41594	12.05199
01-15-2015 22	98	99	1845.0	0.4350	802.6	1.7634	3264.5	189.3	1.00	73.51	0.1255	231.5475	0.030873	3.3068	0.006101	88.20717	11.0759
01-15-2015 23	98	99	1864.6	0.4310	803.6	1.7700	3300.4	191.3	1.00	74.29	0.1255	234.0073	0.0312	3.3068	0.006166	89.14422	11.14303
01-16-2015 00	92	99	1790.1	0.4180	748.3	1.6813	3009.7	183.7	1.00	71.32	0.1255	224.6576	0.029954	3.3068	0.005919	85.58247	10.69781
01-16-2015 01	30	90	1104.2	0.4550	502.4	1.4805	1634.8	113.3	1.00	43.99	0.1255	138.5771	0.018477	3.3068	0.003651	52.79044	6.598805
01-16-2015 02	0	87	861.2	0.3760	323.8	1.4208	1223.6	88.4	1.00	34.31	0.1255	108.0806	0.014411	3.3068	0.002848	41.17291	5.146614
01-16-2015 03	0	85	898.9	0.3600	323.6	1.4369	1291.6	92.2	1.00	35.81	0.1255	112.812	0.015041	3.3068	0.002972	42.3753	5.371912
01-16-2015 04	0	85	904.8	0.3600	325.7	1.4419	1304.6	92.8	1.00	36.05	0.1255	113.5524	0.01514	3.3068	0.002992	43.25737	5.407171
01-16-2015 05	0	85	933.6	0.3540	330.5	1.4093	1315.7	95.8	1.00	37.20	0.1255	117.1668	0.015622	3.3068	0.003087	44.63426	5.579283
01-16-2015 06	0	81	763.8	0.3490	266.6	1.4351	1096.1	78.4	1.00	30.43	0.1255	95.8569	0.012781	3.3068	0.002526	36.51633	4.564542
01-16-2015 07	0	5	87.0	0.1630	14.2	1.0756	93.6	8.9	0.25	3.47	0.1255	10.91596	0.001455	3.3068	0.000288	4.158167	0.519771
01-16-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
01-16-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Data	Date/Time	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack NOx Lb/MMBtu	Common Stack NOx Lb/MMBtu	Common Stack SO <sub>2</sub> (Lb/Hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-16-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-16-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-17-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01-18-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Subsidiary Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO <sub>2</sub> (lb/hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal to Ash (lb/mmBtu)	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-18-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-18-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-19-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Date	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/hr	Common Stack SO2 (Lb/mmBtu)	Common Stack SO2 (Lb/hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal lbs/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-20-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-20-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-21-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0
	01-22-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

DATE	Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-22-2015	13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-22-2015	23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	13	0	0	2.4	0.0000	0.0	0.3	0.17	0.10	0.1255	0.302957	4.04E-05	3.3068	0.11541	0.014426
01-23-2015	14	0	0	12.9	0.0000	0.0	1.3	0.88	0.52	0.1255	1.623468	0.000216	3.3068	4.28E-05	0.618454
01-23-2015	15	0	0	29.9	0.0000	0.0	3.1	1.00	1.19	0.1255	3.75245	0.0005	3.3068	9.89E-05	1.429482
01-23-2015	16	1	1	45.3	0.0022	0.0	4.6	1.00	1.80	0.1255	5.68515	0.000758	3.3068	0.00015	2.165737
01-23-2015	17	0	0	17.4	0.0033	0.0	1.8	0.58	0.69	0.1255	2.1837	0.000291	3.3068	5.75E-05	0.831873
01-23-2015	18	0	0	10.4	0.0000	0.0	1.1	0.73	0.42	0.1255	1.310095	0.000175	3.3068	3.45E-05	0.499076
01-23-2015	19	0	0	8.0	0.0000	0.0	0.8	1.00	0.32	0.1255	1.004	0.000134	3.3068	2.65E-05	0.38247
01-23-2015	20	0	0	16.8	0.0000	0.0	1.7	1.00	0.67	0.1255	2.1084	0.000281	3.3068	5.56E-05	0.803187
01-23-2015	21	0	0	4.9	0.0000	0.0	0.5	0.35	0.20	0.1255	0.619343	8.26E-05	3.3068	1.63E-05	0.235936
01-23-2015	22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-23-2015	23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
01-24-2015	11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Start/End Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PW-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-24-2015	12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0.84336	0.000112	0.00000	2.22E-05	0.321275	0.040159
01-24-2015	13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	6.6013	0.00088	0.00000	0.00000	0	0
01-24-2015	14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	8.1826	0.001091	0.00000	0.00000	0	0
01-24-2015	15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	11.2448	0.001499	0.00000	0.00000	0	0
01-24-2015	16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	15.92595	0.002123	0.00000	0.00000	0	0
01-24-2015	17	0	0	6.7	0.0000	0.0	0.7	0.70	0.00	0.1255	30.4712	0.004056	0.00000	0.00000	0	0
01-24-2015	18	0	0	52.6	0.0133	0.0	5.4	1.00	2.10	0.1255	6.6013	0.00088	0.00000	0.00000	0	0
01-24-2015	19	0	0	65.2	0.0230	0.0	6.7	1.00	2.60	0.1255	8.1826	0.001091	0.00000	0.00000	0	0
01-24-2015	20	1	1	89.6	0.0246	0.0	9.2	1.00	3.57	0.1255	11.2448	0.001499	0.00000	0.00000	0	0
01-24-2015	21	0	0	126.9	0.0252	0.0	13.0	1.00	5.06	0.1255	15.92595	0.002123	0.00000	0.00000	0	0
01-24-2015	22	0	0	242.4	0.0520	0.0	24.9	1.00	9.66	0.1255	30.4712	0.004056	0.00000	0.00000	0	0
01-24-2015	23	0	0	224.1	0.0571	0.0	23.0	1.00	8.93	0.1255	28.12455	0.00375	0.00000	0.00000	0	0
01-25-2015	00	0	0	209.7	0.0582	0.0	21.5	1.00	8.35	0.1255	26.31735	0.003509	0.00000	0.00000	0	0
01-25-2015	01	0	0	193.9	0.0542	0.0	19.9	1.00	7.73	0.1255	24.33445	0.003245	0.00000	0.00000	0	0
01-25-2015	02	0	0	193.4	0.0548	0.0	19.8	1.00	7.71	0.1255	24.33445	0.003245	0.00000	0.00000	0	0
01-25-2015	03	0	0	192.2	0.0541	0.0	19.7	1.00	7.66	0.1255	24.33445	0.003245	0.00000	0.00000	0	0
01-25-2015	04	0	0	180.2	0.0488	0.0	18.5	1.00	7.18	0.1255	22.6151	0.003015	0.00000	0.00000	0	0
01-25-2015	05	0	0	226.8	0.0520	0.0	23.3	1.00	9.04	0.1255	28.4634	0.003795	0.00000	0.00000	0	0
01-25-2015	06	0	0	209.7	0.0510	0.0	21.5	1.00	8.35	0.1255	26.31735	0.003509	0.00000	0.00000	0	0
01-25-2015	07	0	0	226.5	0.0578	0.0	23.2	1.00	9.02	0.1255	28.42575	0.00379	0.00000	0.00000	0	0
01-25-2015	08	1	1	200.1	0.0550	0.0	20.5	1.00	8.23	0.1255	25.11255	0.003348	0.00000	0.00000	0	0
01-25-2015	09	0	0	206.5	0.0489	0.0	21.2	1.00	8.23	0.1255	25.11255	0.003348	0.00000	0.00000	0	0
01-25-2015	10	0	0	226.8	0.0529	0.0	23.3	1.00	9.04	0.1255	28.4634	0.003795	0.00000	0.00000	0	0
01-25-2015	11	0	24	419.0	0.1680	0.0	43.0	1.00	16.69	0.1255	52.5845	0.007011	0.00000	0.00000	0	0
01-25-2015	12	9	86	1009.5	0.3600	363.4	1234.5	1.00	40.22	0.1255	126.6923	0.031115	0.00000	0.00000	0	0
01-25-2015	13	71	106	1737.2	0.3840	667.1	1782.9	1.00	69.21	0.1255	218.0186	0.029069	0.00000	0.00000	0	0
01-25-2015	14	99	102	1952.2	0.4740	925.3	2697.9	1.00	77.78	0.1255	245.0011	0.032666	0.00000	0.00000	0	0
01-25-2015	15	100	98	1894.4	0.5310	1005.9	3262.8	1.00	75.47	0.1255	237.7472	0.031699	0.00000	0.00000	0	0
01-25-2015	16	98	98	1859.5	0.5210	968.8	3240.5	1.00	74.08	0.1255	233.3673	0.031115	0.00000	0.00000	0	0
01-25-2015	17	100	99	1881.2	0.5480	1030.9	3240.5	1.00	75.22	0.1255	236.0906	0.031478	0.00000	0.00000	0	0
01-25-2015	18	101	99	1867.9	0.5710	1078.0	3240.5	1.00	74.95	0.1255	233.7187	0.031162	0.00000	0.00000	0	0
01-25-2015	19	101	99	1862.3	0.5480	1020.5	3185.5	1.00	74.20	0.1255	233.7187	0.031162	0.00000	0.00000	0	0
01-25-2015	20	101	99	1887.3	0.4800	905.9	3250.7	1.00	75.19	0.1255	236.8562	0.03158	0.00000	0.00000	0	0
01-25-2015	21	99	99	1885.4	0.4480	844.7	3267.5	1.00	75.12	0.1255	236.6177	0.031549	0.00000	0.00000	0	0
01-25-2015	22	97	100	1878.7	0.3990	749.6	3241.3	1.00	74.85	0.1255	235.7769	0.031436	0.00000	0.00000	0	0
01-25-2015	23	97	100	1871.8	0.3310	619.6	3219.0	1.00	74.57	0.1255	234.9109	0.031321	0.00000	0.00000	0	0
01-26-2015	00	98	99	1872.0	0.3510	657.1	3268.7	1.00	74.58	0.1255	234.936	0.031324	0.00000	0.00000	0	0
01-26-2015	01	98	99	1880.5	0.3840	722.1	3301.1	1.00	74.92	0.1255	236.0028	0.031467	0.00000	0.00000	0	0
01-26-2015	02	97	99	1864.7	0.3770	703.0	3290.4	1.00	74.29	0.1255	234.0199	0.031202	0.00000	0.00000	0	0
01-26-2015	03	100	102	1902.6	0.3840	730.6	3381.2	1.00	75.80	0.1255	238.7763	0.031836	0.00000	0.00000	0	0
01-26-2015	04	99	100	1877.0	0.3680	690.7	3354.0	1.00	74.78	0.1255	235.5635	0.031408	0.00000	0.00000	0	0
01-26-2015	05	99	105	1943.5	0.3810	740.5	3466.8	1.00	77.43	0.1255	243.9093	0.032521	0.00000	0.00000	0	0
01-26-2015	06	118	122	2262.8	0.3580	810.1	4127.9	1.00	90.15	0.1255	283.9814	0.037864	0.00000	0.00000	0	0
01-26-2015	07	125	149	2532.4	0.3900	987.6	4637.0	1.00	100.89	0.1255	317.8162	0.042375	0.00000	0.00000	0	0
01-26-2015	08	117	149	2475.5	0.3760	930.8	4554.8	1.00	98.63	0.1255	310.6753	0.041423	0.00000	0.00000	0	0
01-26-2015	09	136	148	2611.3	0.3660	955.7	4853.4	1.00	104.04	0.1255	327.7182	0.043695	0.00000	0.00000	0	0
01-26-2015	10	130	165	2708.4	0.3700	1002.1	4815.1	1.00	107.90	0.1255	339.9042	0.04532	0.00000	0.00000	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Unit	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Date/Time	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (lb/mmBtu)	Unit Operation (minutes)	Cost Transfr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/Btu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
137	142	137	01-26-2015 11	2592.3	0.4210	1.8507	4797.5	266.0	1.00	103.28	0.1255	325.3337	3.3068	0.008572	123.9347	15.49183
132	135	132	01-26-2015 12	2474.7	0.3860	1.8729	4634.8	253.9	1.00	98.59	0.1255	310.5749	3.3068	0.008183	118.3124	14.78904
130	128	130	01-26-2015 13	2381.2	0.3750	1.8701	4453.1	244.3	1.00	94.87	0.1255	298.8406	3.3068	0.007874	113.8422	14.23028
130	129	130	01-26-2015 14	2398.2	0.3810	1.8723	4490.1	246.1	1.00	95.55	0.1255	300.9741	3.3068	0.007793	114.655	14.33187
129	125	129	01-26-2015 15	2351.4	0.3840	1.8716	4400.8	241.3	1.00	93.68	0.1255	295.1007	3.3068	0.007776	112.4175	14.05219
130	126	130	01-26-2015 16	2377.2	0.3770	1.8734	4453.5	243.9	1.00	94.71	0.1255	298.3386	3.3068	0.007861	113.651	14.20637
137	129	137	01-26-2015 17	2470.3	0.3790	1.8847	4655.7	253.5	1.00	98.42	0.1255	310.0227	3.3068	0.008169	118.102	14.76275
142	138	142	01-26-2015 18	2596.8	0.3900	1.8862	4898.0	266.4	1.00	103.46	0.1255	325.8984	3.3068	0.008587	124.1498	15.51873
150	151	150	01-26-2015 19	2774.0	0.3780	1.9065	5288.7	284.6	1.00	110.52	0.1255	348.137	3.3068	0.009173	132.6215	16.57769
150	151	150	01-26-2015 20	2789.0	0.3550	1.9111	5330.1	286.2	1.00	111.12	0.1255	350.0195	3.3068	0.009223	133.3386	16.66733
149	151	149	01-26-2015 21	2777.9	0.3500	1.9222	5339.7	285.0	1.00	101.69	0.1255	320.3262	3.3068	0.008844	122.0271	15.25339
125	151	125	01-26-2015 22	2552.4	0.3700	1.9328	4933.2	261.9	1.00	95.73	0.1255	301.5389	3.3068	0.007945	114.8701	14.33876
111	148	111	01-26-2015 23	2402.7	0.3430	1.9391	4659.1	246.5	1.00	76.22	0.1255	240.1066	3.3068	0.006327	91.46773	11.43347
98	106	98	01-27-2015 00	1913.2	0.3990	1.9218	3676.8	196.3	1.00	76.10	0.1255	239.7301	3.3068	0.006317	91.3243	11.41554
97	104	97	01-27-2015 01	1910.2	0.3940	1.9058	3640.5	196.0	1.00	73.91	0.1255	249.8329	3.3068	0.006583	95.17291	11.89661
103	103	103	01-27-2015 02	1990.7	0.3800	1.9158	3813.8	204.2	1.00	76.86	0.1255	249.8329	3.3068	0.006379	92.22789	11.52849
99	104	99	01-27-2015 03	1929.1	0.4080	1.9130	3690.3	197.9	1.00	82.45	0.1255	259.7097	3.3068	0.006843	98.93546	12.36693
105	112	105	01-27-2015 04	2069.4	0.3780	1.9126	3738.6	200.6	1.00	77.88	0.1255	245.3149	3.3068	0.006464	93.45179	11.68147
100	105	100	01-27-2015 05	1954.7	0.4190	1.9126	3738.6	200.6	1.00	87.86	0.1255	276.7552	3.3068	0.007292	105.4327	13.17908
113	122	113	01-27-2015 06	2205.3	0.3930	1.9312	4258.8	226.3	1.00	103.67	0.1255	326.5761	3.3068	0.008605	124.408	15.551
131	147	131	01-27-2015 07	2602.2	0.3790	1.9334	5031.0	267.0	1.00	98.50	0.1255	310.2737	3.3068	0.008175	118.1976	14.7747
105	162	105	01-27-2015 08	2472.3	0.4010	1.9545	4832.2	253.7	1.00	102.82	0.1255	323.8904	3.3068	0.008534	123.3849	15.42311
117	164	117	01-27-2015 09	2580.8	0.3760	1.9543	5043.6	264.8	1.00	113.82	0.1255	358.5535	3.3068	0.009447	136.5886	17.07371
148	163	148	01-27-2015 10	2857.0	0.3510	1.9411	5545.6	293.1	1.00	113.36	0.1255	358.6665	3.3068	0.00945	136.6327	17.07908
148	163	148	01-27-2015 11	2857.9	0.3570	1.9413	5426.7	286.8	1.00	111.37	0.1255	350.8227	3.3068	0.009244	133.6446	16.70558
143	163	143	01-27-2015 12	2795.4	0.3780	1.9413	5426.7	286.8	1.00	113.32	0.1255	356.9597	3.3068	0.009405	135.9815	16.99781
147	163	147	01-27-2015 13	2844.3	0.3700	1.9425	5525.0	291.8	1.00	110.93	0.1255	349.4422	3.3068	0.009207	133.1187	16.63984
133	163	133	01-27-2015 14	2784.4	0.3780	1.9455	5417.0	285.7	1.00	105.23	0.1255	331.4832	3.3068	0.008734	126.2773	15.78466
133	153	133	01-27-2015 15	2641.3	0.3750	1.9455	5101.6	285.7	1.00	104.58	0.1255	329.425	3.3068	0.00868	125.4992	15.68665
139	147	139	01-27-2015 16	2624.9	0.3650	1.9413	5095.7	269.3	1.00	110.11	0.1255	346.8569	3.3068	0.009139	132.1339	16.51673
149	152	149	01-27-2015 17	2763.8	0.3620	1.9322	5340.1	283.6	1.00	111.51	0.1255	351.2494	3.3068	0.009255	133.8072	16.7259
154	154	154	01-27-2015 18	2798.8	0.3690	1.9407	5431.7	287.2	1.00	118.90	0.1255	374.5297	3.3068	0.009868	142.6757	17.83446
169	169	169	01-27-2015 19	2984.3	0.3700	1.9280	5753.7	306.2	1.00	118.90	0.1255	374.5297	3.3068	0.009868	142.6757	17.83446
169	158	169	01-27-2015 20	2994.7	0.3590	1.9281	5774.2	307.3	1.00	119.31	0.1255	375.8349	3.3068	0.009903	143.1729	17.89661
169	158	169	01-27-2015 21	3002.0	0.3590	1.9243	5776.8	308.0	1.00	119.60	0.1255	376.751	3.3068	0.009927	143.5219	17.94024
158	149	158	01-27-2015 22	2802.1	0.3500	1.9280	5402.5	287.5	1.00	111.64	0.1255	351.6636	3.3068	0.009266	133.9649	16.74562
139	140	139	01-27-2015 23	2572.1	0.3510	1.9236	4947.7	263.9	1.00	102.47	0.1255	322.7986	3.3068	0.008505	123.9689	15.37112
140	140	140	01-28-2015 00	2595.0	0.3220	1.9314	5012.1	266.2	1.00	103.39	0.1255	325.6725	3.3068	0.008581	124.0637	15.50797
137	147	137	01-28-2015 01	2606.7	0.3550	1.9407	5058.7	270.4	1.00	103.85	0.1255	327.1409	3.3068	0.00862	124.6231	15.77789
139	145	139	01-28-2015 02	2637.9	0.3390	1.9401	5117.8	270.6	1.00	105.10	0.1255	327.1409	3.3068	0.008723	126.1147	15.76434
139	145	139	01-28-2015 03	2594.9	0.3520	1.9397	5033.4	266.2	1.00	105.10	0.1255	331.0565	3.3068	0.008723	126.1147	15.76434
149	149	149	01-28-2015 04	2679.8	0.3570	1.9367	5190.1	274.9	1.00	106.76	0.1255	336.3149	3.3068	0.008861	128.1179	16.01474
153	153	153	01-28-2015 05	2826.5	0.3660	1.9141	5410.3	290.0	1.00	112.61	0.1255	354.7258	3.3068	0.009347	135.1315	17.89143
167	157	167	01-28-2015 06	2979.1	0.3510	1.9268	5740.2	305.7	1.00	118.69	0.1255	373.8771	3.3068	0.009851	142.4271	17.80339
170	158	170	01-28-2015 07	2987.6	0.3560	1.9392	5793.6	306.5	1.00	119.03	0.1255	374.9438	3.3068	0.009879	142.8335	17.85418
168	158	168	01-28-2015 08	2995.2	0.3620	1.9348	5795.1	307.3	1.00	119.33	0.1255	375.8976	3.3068	0.009904	143.1968	17.8996
155	155	155	01-28-2015 09	2892.0	0.3440	1.9348	5595.4	296.7	1.00	115.22	0.1255	362.946	3.3068	0.009563	138.2629	17.28287



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Subject Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/mmBtu	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Cool Inlet/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/TBtu)	HCl (lb/hr)	HF (lb/hr)
	01-28-2015 10	132	154	2649.2	0.3900	1.9357	5128.1	271.8	105.55	0.1255	332.4746	0.044329	3.3068	0.00876	126.655	15.83187
	01-28-2015 11	116	135	2333.8	0.3970	1.9372	4521.0	239.5	92.98	0.1255	292.8919	0.039052	3.3068	0.007717	111.5761	13.94701
	01-28-2015 12	106	138	2260.7	0.3590	1.9298	4362.6	231.9	90.07	0.1255	283.7179	0.037828	3.3068	0.007476	108.0813	13.51016
	01-28-2015 13	104	112	2030.3	0.3150	1.9245	3907.4	208.3	80.89	0.1255	254.8027	0.039973	3.3068	0.006714	97.06614	12.13927
	01-28-2015 14	103	101	1971.9	0.3310	1.9292	3707.7	197.2	76.57	0.1255	241.1985	0.032159	3.3068	0.006355	91.88367	11.48546
	01-28-2015 15	101	99	1883.1	0.3370	1.9313	3636.9	193.2	75.02	0.1255	236.3291	0.03151	3.3068	0.006227	90.02869	11.25359
	01-28-2015 16	106	111	2017.4	0.3410	1.9406	3915.0	207.0	80.37	0.1255	253.1837	0.033757	3.3068	0.006671	96.4494	12.05618
	01-28-2015 17	148	152	2783.4	0.3560	1.9649	5469.0	285.6	110.89	0.1255	349.3167	0.046575	3.3068	0.009204	133.0709	16.63886
	01-28-2015 18	154	153	2795.4	0.3430	1.9760	5523.6	286.8	111.37	0.1255	350.8227	0.046776	3.3068	0.009244	133.6446	16.70558
	01-28-2015 19	159	155	2898.5	0.3440	1.9635	5691.3	297.4	115.48	0.1255	363.7618	0.048501	3.3068	0.009585	138.5737	17.32171
	01-28-2015 20	162	155	2925.9	0.3600	1.9685	5759.7	300.2	116.57	0.1255	367.2005	0.048959	3.3068	0.009675	139.8837	17.48546
	01-28-2015 21	163	154	2905.3	0.3520	1.9873	5773.8	298.1	115.75	0.1255	364.6152	0.048615	3.3068	0.009607	138.8988	17.36235
	01-28-2015 22	161	148	2813.3	0.3480	1.9660	5615.4	288.6	112.08	0.1255	353.0692	0.047075	3.3068	0.009303	134.5004	16.81255
	01-28-2015 23	132	139	2495.4	0.3720	1.9960	5001.9	256.0	99.42	0.1255	313.1727	0.041756	3.3068	0.008252	119.302	14.91275
	01-29-2015 00	124	110	2171.8	0.3890	1.9991	4341.6	222.8	86.53	0.1255	272.5609	0.036341	3.3068	0.007182	103.8311	12.97888
	01-29-2015 01	106	99	1896.1	0.4070	1.9976	3737.7	194.5	75.54	0.1255	237.9606	0.031728	3.3068	0.00627	90.6502	11.39127
	01-29-2015 02	98	99	1886.9	0.3850	1.9810	3737.9	193.6	75.18	0.1255	236.806	0.031574	3.3068	0.00624	90.21036	11.27629
	01-29-2015 03	103	105	1933.1	0.3820	1.9980	3862.4	198.3	77.02	0.1255	242.6041	0.032347	3.3068	0.006392	92.41912	11.55239
	01-29-2015 04	133	146	2528.0	0.3840	2.0139	5091.2	259.4	100.72	0.1255	317.264	0.042301	3.3068	0.00836	120.8606	15.10757
	01-29-2015 05	141	150	2619.5	0.3560	2.0134	5274.1	268.8	104.36	0.1255	328.7473	0.043832	3.3068	0.008662	125.2351	15.65438
	01-29-2015 06	159	150	2765.8	0.3420	2.0105	5560.6	283.8	110.19	0.1255	347.1079	0.04628	3.3068	0.009146	132.2295	16.52869
	01-29-2015 07	162	153	2837.1	0.3500	2.0071	5694.4	291.1	113.03	0.1255	356.0561	0.047473	3.3068	0.009382	135.6382	16.95478
	01-29-2015 08	167	157	2893.7	0.3600	2.0137	5827.1	296.9	115.29	0.1255	363.1594	0.04842	3.3068	0.009569	138.3442	17.29303
	01-29-2015 09	146	149	2617.7	0.3350	2.0261	5303.7	288.6	104.29	0.1255	328.5214	0.043802	3.3068	0.008656	125.149	15.64363
	01-29-2015 10	127	146	2447.1	0.3650	2.0237	4952.3	251.1	97.49	0.1255	307.1111	0.040947	3.3068	0.008092	116.9928	14.6241
	01-29-2015 11	113	152	2396.2	0.3200	2.0115	4819.9	245.8	95.47	0.1255	300.7231	0.040096	3.3068	0.007924	114.5594	14.31992
	01-29-2015 12	108	115	2029.3	0.3240	2.0033	4075.5	208.2	80.85	0.1255	254.6772	0.039956	3.3068	0.00671	97.01833	12.12729
	01-29-2015 13	104	112	1967.7	0.3310	2.0164	3967.7	201.9	78.39	0.1255	246.9464	0.032926	3.3068	0.006507	94.07331	11.75916
	01-29-2015 14	99	110	1910.8	0.3440	2.0178	3855.7	196.0	76.13	0.1255	239.8054	0.031974	3.3068	0.006319	91.35299	11.41912
	01-29-2015 15	99	102	1873.8	0.3380	2.0010	3749.5	192.3	74.65	0.1255	235.1619	0.031354	3.3068	0.006196	89.58406	11.19801
	01-29-2015 16	102	127	2115.9	0.3260	2.0173	4268.5	217.1	84.30	0.1255	265.5455	0.035405	3.3068	0.006997	101.1586	12.64482
	01-29-2015 17	130	150	2562.4	0.3700	2.0318	5206.4	262.9	102.09	0.1255	321.5812	0.042877	3.3068	0.008473	122.5052	15.31315
	01-29-2015 18	149	153	2718.1	0.3690	2.0146	5476.0	278.9	108.29	0.1255	341.1216	0.045482	3.3068	0.008988	129.949	16.24363
	01-29-2015 19	130	151	2559.6	0.3900	2.0167	5162.0	262.6	101.98	0.1255	321.2298	0.04283	3.3068	0.008464	122.3713	15.29641
	01-29-2015 20	122	144	2408.6	0.3840	2.0229	4872.3	247.1	95.96	0.1255	302.2793	0.040303	3.3068	0.007965	116.5801	13.32251
	01-29-2015 21	100	143	2229.3	0.3460	2.0083	4477.1	228.7	88.82	0.1255	279.7772	0.037903	3.3068	0.007372	105.8402	12.439402
	01-29-2015 22	98	125	2059.7	0.3390	2.0126	4145.4	211.3	82.06	0.1255	258.4924	0.034465	3.3068	0.006811	98.47171	12.30896
	01-29-2015 23	98	106	1901.2	0.3750	2.0185	3837.6	195.1	75.75	0.1255	238.6006	0.031813	3.3068	0.006287	90.89402	11.36175
	01-30-2015 00	100	113	1979.1	0.3870	2.0013	3960.7	203.1	78.85	0.1255	248.3771	0.033116	3.3068	0.006544	94.61893	11.82729
	01-30-2015 01	98	100	1870.8	0.4100	1.9986	3739.0	191.9	74.53	0.1255	234.7854	0.031304	3.3068	0.006186	89.44064	11.18008
	01-30-2015 02	98	100	1863.9	0.4000	1.9970	3722.2	191.2	74.26	0.1255	233.9195	0.031189	3.3068	0.006163	89.11076	11.13884
	01-30-2015 03	98	100	1875.1	0.3980	1.9919	3735.1	192.4	74.71	0.1255	235.3251	0.031376	3.3068	0.006201	89.64622	11.20578
	01-30-2015 04	98	100	1877.5	0.4040	1.9930	3741.8	192.6	74.80	0.1255	235.6263	0.031416	3.3068	0.006208	89.76096	11.22012
	01-30-2015 05	111	130	2291.6	0.3790	1.9972	4576.8	235.1	91.30	0.1255	287.5958	0.038345	3.3068	0.007578	89.76096	13.69486
	01-30-2015 06	152	160	2880.1	0.3960	2.0169	5808.9	295.5	114.75	0.1255	361.4526	0.048193	3.3068	0.009524	137.694	17.21175
	01-30-2015 07	169	158	2960.7	0.4120	2.0374	6032.0	303.8	117.96	0.1255	371.5679	0.049542	3.3068	0.00979	141.5474	17.69343
	01-30-2015 08	155	157	2850.8	0.3690	2.0247	5772.0	292.5	113.58	0.1255	357.7754	0.047703	3.3068	0.009427	136.2932	17.03665



Ontario Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Date	Date/Hour	YTOT Gross Load MW Value	YTOT Gross Load MW Value	Common Stack Heat input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO <sub>2</sub> (lb/hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/Tbu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	01-30-2015 09	153	158	2819.9	0.3550	1001.1	2.0455	5771.0	289.3	1.00	112.35	0.1255	353.8975	0.047186	3.3068	0.009325	134.8159	16.85199
	01-30-2015 10	165	153	2881.6	0.3650	1051.8	2.0356	5868.7	295.7	1.00	114.80	0.1255	361.6408	0.048218	3.3068	0.009529	137.7657	17.22072
	01-30-2015 11	150	151	2715.6	0.3460	999.6	2.0333	5521.7	278.6	1.00	108.19	0.1255	340.8078	0.04544	3.3068	0.00898	129.8295	16.22869
	01-30-2015 12	146	152	2672.6	0.3620	967.5	2.0533	5487.6	274.2	1.00	106.48	0.1255	335.4113	0.044721	3.3068	0.008838	127.7737	15.97171
	01-30-2015 13	149	151	2704.2	0.3630	981.6	2.0500	5543.6	277.5	1.00	107.74	0.1255	339.3771	0.04525	3.3068	0.008942	129.2845	16.16056
	01-30-2015 14	135	149	2619.6	0.3810	998.1	2.0413	5347.4	268.8	1.00	104.37	0.1255	328.7998	0.043834	3.3068	0.008662	125.2398	15.65498
	01-30-2015 15	124	140	2428.2	0.3880	942.1	2.0500	4977.8	249.1	1.00	96.74	0.1255	304.7391	0.040631	3.3068	0.00803	116.0892	14.51116
	01-30-2015 16	139	156	2726.5	0.3790	1033.3	2.0500	5589.2	279.7	1.00	108.63	0.1255	342.1758	0.045623	3.3068	0.009016	130.3506	16.29382
	01-30-2015 17	159	158	2885.2	0.3800	1096.4	2.0587	5899.9	296.0	1.00	114.95	0.1255	362.0926	0.048278	3.3068	0.009541	137.9378	17.24223
	01-30-2015 18	167	165	3006.9	0.3580	1076.5	2.0573	6186.0	308.5	1.00	119.80	0.1255	377.366	0.050315	3.3068	0.009943	143.7562	17.96952
	01-30-2015 19	165	161	2958.0	0.3540	1047.1	2.0555	6080.1	303.5	1.00	117.85	0.1255	371.229	0.049496	3.3068	0.009781	141.4183	17.67729
	01-30-2015 20	151	161	2835.2	0.3450	978.1	2.0493	5810.3	290.9	1.00	112.96	0.1255	355.8176	0.047442	3.3068	0.009375	135.5474	16.94343
	01-30-2015 21	164	156	2903.1	0.3440	988.7	2.0473	5943.4	297.9	1.00	115.66	0.1255	364.3391	0.048578	3.3068	0.0096	138.7936	17.3492
	01-30-2015 22	161	152	2813.9	0.3510	987.7	2.0593	5794.8	283.7	1.00	112.11	0.1255	353.1445	0.047085	3.3068	0.009305	134.5291	16.81614
	01-30-2015 23	149	151	2715.1	0.3610	980.2	2.0508	5568.2	278.6	1.00	108.17	0.1255	340.7407	0.045432	3.3068	0.008978	129.8056	16.2257
	01-31-2015 00	147	146	2666.3	0.3780	1007.9	2.0410	5441.9	273.6	1.00	106.23	0.1255	336.0082	0.044615	3.3068	0.008817	127.4725	15.93406
	01-31-2015 01	158	161	2916.4	0.3750	1093.7	2.0462	5967.6	299.2	1.00	116.19	0.1255	366.0082	0.0488	3.3068	0.009644	139.4295	17.42869
	01-31-2015 02	153	154	2776.1	0.3680	1021.6	2.0502	5691.6	284.8	1.00	110.60	0.1255	348.4006	0.046453	3.3068	0.009701	140.2614	17.53267
	01-31-2015 03	159	163	2933.8	0.3800	1114.8	2.0527	6022.3	301.0	1.00	116.88	0.1255	368.1919	0.049091	3.3068	0.009701	140.2614	17.53267
	01-31-2015 04	162	165	2962.8	0.3810	1128.8	2.0623	6110.3	304.4	1.00	118.04	0.1255	375.8314	0.049577	3.3068	0.009797	141.6478	17.70598
	01-31-2015 05	162	165	2995.8	0.3720	1145.9	2.0386	6107.3	307.0	1.00	119.35	0.1255	379.9729	0.050129	3.3068	0.009906	143.2255	17.90319
	01-31-2015 06	162	165	3055.7	0.3750	1145.9	2.0623	6301.7	313.5	1.00	121.74	0.1255	383.4904	0.051131	3.3068	0.010105	146.0892	18.26116
	01-31-2015 07	170	171	3069.6	0.4120	1264.7	2.0763	6373.5	314.9	1.00	122.29	0.1255	385.2348	0.051364	3.3068	0.01015	146.7538	18.34422
	01-31-2015 08	170	175	3098.4	0.4190	1298.2	2.0700	6413.6	317.9	1.00	123.44	0.1255	393.5555	0.052473	3.3068	0.010246	148.1307	18.51633
	01-31-2015 09	170	176	3135.9	0.4200	1317.1	2.0578	6453.0	321.7	1.00	124.94	0.1255	393.5555	0.052473	3.3068	0.01037	149.9235	18.74044
	01-31-2015 10	165	175	3073.8	0.4160	1278.7	2.0744	6376.2	315.4	1.00	122.46	0.1255	395.7619	0.051434	3.3068	0.010164	146.9546	18.36932
	01-31-2015 11	154	173	2959.6	0.4040	1195.7	2.0744	6139.4	303.7	1.00	117.91	0.1255	371.4298	0.049523	3.3068	0.009787	141.4948	17.68685
	01-31-2015 12	127	144	2487.0	0.4200	1044.5	2.0620	5128.2	255.2	1.00	99.08	0.1255	263.4622	0.035128	3.3068	0.008224	118.9004	14.86255
	01-31-2015 13	111	117	2099.3	0.4170	875.4	2.0476	4298.5	215.4	1.00	83.64	0.1255	232.5892	0.031011	3.3068	0.006942	100.3649	12.54562
	01-31-2015 14	98	100	1853.3	0.4080	756.1	2.0335	3768.6	190.1	1.00	73.84	0.1255	232.5892	0.031011	3.3068	0.006128	88.60398	11.0755
	01-31-2015 15	98	100	1850.3	0.3830	708.7	2.0432	3789.8	189.8	1.00	73.72	0.1255	232.2127	0.030961	3.3068	0.006119	88.46056	11.05757
	01-31-2015 16	99	101	1882.2	0.3820	719.0	2.0499	3853.4	193.1	1.00	74.99	0.1255	236.2161	0.031495	3.3068	0.006224	89.98566	11.24821
	01-31-2015 17	107	113	2023.5	0.3600	728.5	2.0636	4185.8	207.6	1.00	80.62	0.1255	253.9493	0.033859	3.3068	0.006691	96.74104	12.09263
	01-31-2015 18	144	159	2756.3	0.3630	1000.5	2.0662	5695.2	282.8	1.00	109.81	0.1255	345.9157	0.046121	3.3068	0.009114	131.7753	16.47191
	01-31-2015 19	159	166	2940.1	0.3860	1134.9	2.0529	6035.6	301.6	1.00	117.14	0.1255	368.9826	0.049197	3.3068	0.009722	140.5625	17.57032
	01-31-2015 20	159	170	3001.1	0.3840	1152.4	2.0519	6097.8	307.9	1.00	119.57	0.1255	376.6381	0.050218	3.3068	0.009924	143.4789	17.93486
	01-31-2015 21	146	153	2708.2	0.3870	1048.1	2.0217	5475.1	277.9	1.00	107.90	0.1255	339.8791	0.045316	3.3068	0.008955	129.4757	16.18446
	01-31-2015 22	121	128	2283.1	0.4080	931.5	2.0236	4620.1	234.2	1.00	90.96	0.1255	286.5291	0.038203	3.3068	0.00755	109.1522	13.64402
	01-31-2015 23	99	101	1832.5	0.4360	799.0	2.0258	3712.3	188.0	1.00	73.01	0.1255	229.9788	0.030663	3.3068	0.00606	87.60956	10.9512
	02-01-2015 00	98	119	2019.0	0.3790	765.2	2.0233	4085.1	207.1	1.00	80.44	0.1255	253.3845	0.033784	3.3068	0.006676	96.5259	12.06574
	02-01-2015 01	99	130	2115.6	0.3790	801.8	2.0284	4291.2	217.1	1.00	84.29	0.1255	285.5078	0.0354	3.3068	0.006996	101.1442	12.64303
	02-01-2015 02	97	105	1873.0	0.3810	713.6	2.0172	3778.2	192.2	1.00	74.62	0.1255	235.0615	0.031341	3.3068	0.006194	89.54582	11.19323
	02-01-2015 03	93	100	1792.1	0.3600	645.2	2.0121	3605.8	183.9	1.00	71.40	0.1255	224.9086	0.029987	3.3068	0.005926	85.67809	10.70976
	02-01-2015 04	93	100	1801.6	0.3510	632.4	2.0074	3616.5	184.8	1.00	71.78	0.1255	226.1008	0.030146	3.3068	0.005957	86.13227	10.76653
	02-01-2015 05	93	106	1828.8	0.3620	662.0	1.9932	3645.2	187.6	1.00	72.86	0.1255	229.5144	0.030601	3.3068	0.006047	87.43267	10.92908
	02-01-2015 06	99	105	1918.3	0.3500	671.4	1.9829	3803.8	196.8	1.00	76.43	0.1255	240.7467	0.032099	3.3068	0.006343	91.71155	11.46394
	02-01-2015 07	104	109	1992.8	0.3440	685.5	1.9901	3965.8	204.5	1.00	79.39	0.1255	250.0964	0.033346	3.3068	0.00659	95.27331	11.90916



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Substation Date	Date/Time	Y101 Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx Lb/mmBtu		Common Stack SO <sub>2</sub> Lb/mmBtu		Common Stack SC <sub>2</sub> (Lb/Hr)		Common Stack CO <sub>2</sub> (Tons/Hr)		Unit Operation (minutes)		Coal tons/hr		PM-10 (Lb/Hr)		PM-10 (µm/mBtu)		Lead (lb/hr)		Mercury (lb/Hr)		Mercury (lb/Hr)		HCl (lb/hr)		HF (lb/hr)		
Substation Date	02-01-2015 08	138	156	2712.0	0.3620	981.7	2.0032	5432.6	278.3	1.00	108.05	0.1255	340.356	0.04538	3.3068	0.008968	129.6574	16.20717														
	02-01-2015 09	155	161	2868.9	0.3700	1061.5	2.0058	5754.5	294.3	1.00	114.30	0.1255	360.047	0.048005	3.3068	0.009487	137.1586	17.14482														
	02-01-2015 10	164	172	3093.1	0.3660	1110.1	2.0102	6097.2	311.2	1.00	120.84	0.1255	380.6541	0.050753	3.3068	0.01003	145.0088	18.1261														
	02-01-2015 11	132	135	2389.0	0.3880	976.9	2.0113	4805.0	245.1	1.00	95.18	0.1255	299.8195	0.039975	3.3068	0.0079	114.2151	14.27689														
	02-01-2015 12	100	103	1869.1	0.3800	710.3	1.9822	3705.0	191.8	1.00	74.47	0.1255	234.5721	0.031276	3.3068	0.006181	89.35936	11.16992														
	02-01-2015 13	107	115	2030.2	0.3490	708.5	1.9821	4024.1	208.3	1.00	80.88	0.1255	254.7901	0.033971	3.3068	0.006713	97.06135	12.13267														
	02-01-2015 14	124	137	2387.1	0.3540	845.0	1.9925	4756.3	244.9	1.00	95.10	0.1255	299.5811	0.039944	3.3068	0.007894	114.1243	14.26554														
	02-01-2015 15	127	141	2411.8	0.4020	969.5	2.0113	4850.8	247.4	1.00	96.09	0.1255	302.6809	0.040357	3.3068	0.007975	115.3052	14.41315														
	02-01-2015 16	128	142	2464.0	0.3960	975.7	1.9945	4914.5	252.8	1.00	98.17	0.1255	309.232	0.04123	3.3068	0.008148	117.8008	14.7251														
	02-01-2015 17	142	156	2699.1	0.3800	1025.7	2.0089	5422.2	276.9	1.00	107.53	0.1255	338.7371	0.045164	3.3068	0.008925	129.0406	16.13008														
	02-01-2015 18	159	160	2848.2	0.3850	1096.6	2.0155	5740.6	292.2	1.00	113.47	0.1255	357.4491	0.047659	3.3068	0.009418	136.1689	17.02112														
	02-01-2015 19	112	119	2072.6	0.4230	876.7	1.9938	4132.3	212.6	1.00	82.57	0.1255	260.1113	0.034681	3.3068	0.006854	99.08845	12.38606														
	02-01-2015 20	101	103	1865.4	0.3630	677.1	1.9847	3702.2	191.4	1.00	74.32	0.1255	234.1077	0.031214	3.3068	0.006168	89.18247	11.14781														
	02-01-2015 21	125	141	2416.0	0.3610	872.2	1.9999	4831.7	247.9	1.00	96.25	0.1255	303.208	0.040427	3.3068	0.007989	115.506	14.43825														
	02-01-2015 22	126	135	2371.4	0.3950	936.7	1.9789	4692.7	243.3	1.00	94.88	0.1255	297.6107	0.039681	3.3068	0.007842	113.3737	14.17171														
	02-01-2015 23	125	111	2129.7	0.4000	851.9	1.9636	4192.5	218.5	1.00	84.85	0.1255	267.2774	0.035636	3.3068	0.007042	101.8183	12.72729														
	02-02-2015 00	98	107	1898.7	0.3700	698.8	1.9438	3671.3	193.8	1.00	75.25	0.1255	237.0319	0.031604	3.3068	0.006246	90.29641	11.28705														
	02-02-2015 01	98	103	1856.9	0.3460	642.5	1.9354	3593.9	190.5	1.00	73.98	0.1255	233.041	0.031072	3.3068	0.00614	88.7761	11.09701														
	02-02-2015 02	98	100	1833.1	0.3400	623.3	1.9313	3540.2	188.1	1.00	73.03	0.1255	230.0541	0.030673	3.3068	0.006062	87.63825	10.95478														
	02-02-2015 03	98	100	1816.8	0.3480	632.2	1.9441	3532.1	186.4	1.00	72.38	0.1255	228.1214	0.030416	3.3068	0.006011	86.90199	10.86275														
	02-02-2015 04	98	100	1817.7	0.3460	628.9	1.9448	3535.1	186.5	1.00	72.42	0.1255	228.1214	0.030416	3.3068	0.006011	86.90199	10.86275														
	02-02-2015 05	98	100	1816.0	0.3460	588.4	1.9357	3515.3	186.3	1.00	72.35	0.1255	227.908	0.030387	3.3068	0.006005	86.82072	10.85259														
	02-02-2015 06	114	122	2195.5	0.3440	755.3	1.9516	4284.8	225.3	1.00	87.47	0.1255	275.5353	0.036737	3.3068	0.00726	104.9641	13.12052														
	02-02-2015 07	123	131	2324.5	0.3890	904.2	1.9686	4576.1	238.5	1.00	92.61	0.1255	291.7248	0.038896	3.3068	0.007576	109.5347	13.69143														
	02-02-2015 08	122	128	2291.1	0.3860	884.4	1.9696	4512.6	235.1	1.00	91.28	0.1255	287.5331	0.038337	3.3068	0.007576	109.5347	13.69143														
	02-02-2015 09	128	134	2398.5	0.3700	887.4	1.9651	4713.2	246.1	1.00	95.56	0.1255	301.0118	0.040134	3.3068	0.007931	114.6693	14.33367														
	02-02-2015 10	132	145	2518.6	0.3650	919.3	1.9635	4957.8	258.4	1.00	100.34	0.1255	316.0843	0.042144	3.3068	0.008328	120.4112	15.05139														
	02-02-2015 11	133	148	2534.6	0.3610	915.0	1.9829	5025.9	260.0	1.00	100.98	0.1255	318.0923	0.042412	3.3068	0.008381	121.1761	15.14701														
	02-02-2015 12	145	153	2680.9	0.3440	922.2	1.9890	5332.2	275.1	1.00	106.81	0.1255	336.453	0.04486	3.3068	0.008865	128.1705	16.02131														
	02-02-2015 13	158	165	2908.9	0.3520	1023.9	1.9940	5800.4	298.5	1.00	115.89	0.1255	365.067	0.048675	3.3068	0.009619	139.0709	17.38386														
	02-02-2015 14	167	174	3086.8	0.3630	1120.5	1.9822	6118.7	316.7	1.00	122.98	0.1255	387.3934	0.051652	3.3068	0.010207	147.5761	18.44701														
	02-02-2015 15	145	148	2636.3	0.3580	943.8	1.9757	5208.5	270.5	1.00	105.03	0.1255	330.8557	0.044113	3.3068	0.008718	126.0382	15.75478														
02-02-2015 16	138	150	2608.0	0.3570	931.1	1.9832	5185.3	267.6	1.00	103.90	0.1255	327.304	0.04364	3.3068	0.008624	124.6853	15.58566															
02-02-2015 17	160	167	2935.0	0.3370	989.1	1.9970	5861.2	301.1	1.00	116.93	0.1255	368.3425	0.049112	3.3068	0.009705	140.3187	17.53984															
02-02-2015 18	166	173	3051.0	0.3440	1049.5	2.0028	6110.6	313.0	1.00	121.55	0.1255	382.9005	0.051053	3.3068	0.010089	145.8645	18.23307															
02-02-2015 19	171	176	3108.3	0.3560	1106.6	2.0112	6251.5	318.9	1.00	123.84	0.1255	390.0917	0.052011	3.3068	0.010307	149.0199	18.62749															
02-02-2015 20	172	175	3117.0	0.3590	1119.0	2.0077	6258.1	319.8	1.00	124.38	0.1255	391.1835	0.052157	3.3068	0.010281	148.647	18.58088															
02-02-2015 21	172	175	3109.2	0.3550	1103.8	2.0170	6271.3	319.0	1.00	123.87	0.1255	390.2046	0.052026	3.3068	0.010281	148.647	18.58088															
02-02-2015 22	161	163	2874.1	0.3590	1031.8	2.0182	5900.6	294.9	1.00	114.51	0.1255	360.6996	0.048093	3.3068	0.009504	137.4072	17.17559															
02-02-2015 23	136	133	2422.3	0.3880	939.9	1.9982	4840.3	248.5	1.00	96.51	0.1255	303.9987	0.040533	3.3068	0.007603	109.9219	13.74024															
02-03-2015 00	115	137	2299.2	0.3980	915.1	1.9941	4584.8	235.9	1.00	91.60	0.1255	288.5496	0.038473	3.3068	0.006786	98.10837	12.26355															
02-03-2015 01	111	114	2052.1	0.4000	820.8	1.9942	4092.2	210.5	1.00	81.76	0.1255	257.5386	0.034338	3.3068	0.006786	98.10837	12.26355															
02-03-2015 02	104	104	1919.5	0.4130	792.8	1.9942	3818.3	196.9	1.00	76.47	0.1255	240.8973	0.032119	3.3068	0.006347	91.76892	11.47111															
02-03-2015 03	119	120	2195.2	0.3780	829.8	1.9972	4384.3	225.2	1.00	87.46	0.1255	275.4976	0.036732	3.3068	0.007259	104.9498	13.11873															
02-03-20																																



Comincons Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Stack ID	Date/Time	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/mmBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal Density	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	02-03-2015 07	171	176	3081.6	0.3560	1097.0	2.0251	6240.4	316.2	1.00	122.77	0.1255	386.7408	0.051565	3.3068	0.01019	147.3275	18.41594
	02-03-2015 08	171	176	3106.8	0.3550	1096.7	2.0108	6247.0	318.8	1.00	123.78	0.1255	389.9034	0.051986	3.3068	0.010273	148.5323	18.56653
	02-03-2015 09	167	172	3016.0	0.3520	1061.6	2.0191	6089.7	309.4	1.00	120.16	0.1255	378.508	0.050467	3.3068	0.009973	144.1912	18.0239
	02-03-2015 10	150	158	2715.6	0.3400	923.3	1.9947	5416.9	278.6	1.00	108.19	0.1255	340.8078	0.04544	3.3068	0.00898	129.8295	16.22869
	02-03-2015 11	145	152	2631.5	0.3810	1002.6	1.9636	5808.4	270.0	1.00	104.84	0.1255	330.2533	0.044033	3.3068	0.008702	125.8088	15.7261
	02-03-2015 12	124	135	2289.2	0.3920	897.4	1.9619	4491.1	234.9	1.00	91.20	0.1255	287.2946	0.038305	3.3068	0.00757	109.4438	13.68048
	02-03-2015 13	123	131	2285.7	0.3800	868.6	1.9434	4442.1	234.5	1.00	91.06	0.1255	286.8554	0.038247	3.3068	0.007558	109.2765	13.65956
	02-03-2015 14	108	112	1961.2	0.3960	776.6	1.9532	3791.6	201.2	1.00	78.14	0.1255	246.1306	0.032817	3.3068	0.006485	93.76255	11.72032
	02-03-2015 15	98	101	1782.0	0.4000	712.8	1.9512	3477.1	182.8	1.00	71.00	0.1255	223.641	0.029818	3.3068	0.005893	85.19522	10.6494
	02-03-2015 16	115	121	2106.3	0.3640	766.7	1.9520	4111.6	216.1	1.00	83.92	0.1255	264.3407	0.035245	3.3068	0.006965	100.6996	12.58745
	02-03-2015 17	136	149	2510.1	0.3680	923.7	1.9633	4940.7	257.5	1.00	100.00	0.1255	315.0176	0.042002	3.3068	0.0083	120.0048	15.0006
	02-03-2015 18	169	176	3005.1	0.3530	1060.8	1.9742	5932.7	308.3	1.00	119.73	0.1255	377.1401	0.050285	3.3068	0.009937	143.6701	17.95876
	02-03-2015 19	170	176	2996.2	0.3510	1051.7	1.9841	5944.9	307.4	1.00	119.37	0.1255	376.0231	0.050136	3.3068	0.009908	143.2446	17.90558
	02-03-2015 20	170	176	3007.1	0.3430	1031.4	1.9798	5953.5	308.5	1.00	119.80	0.1255	377.3911	0.050318	3.3068	0.009944	143.7657	17.97072
	02-03-2015 21	170	176	3029.2	0.3550	1075.4	1.9824	6005.0	310.8	1.00	120.69	0.1255	380.1646	0.050688	3.3068	0.010017	144.8223	18.10279
	02-03-2015 22	151	153	2630.4	0.3760	989.0	1.9800	5208.1	269.9	1.00	104.80	0.1255	330.1152	0.044015	3.3068	0.008698	125.7562	15.71952
	02-03-2015 23	109	106	1924.0	0.3900	750.4	1.9391	3730.9	197.4	1.00	76.65	0.1255	241.462	0.032194	3.3068	0.006362	91.98406	11.49801
	02-04-2015 00	98	106	1832.4	0.3520	645.0	1.9385	3552.1	188.0	1.00	73.00	0.1255	229.9662	0.030662	3.3068	0.006059	87.60478	10.9506
	02-04-2015 01	98	105	1831.7	0.3500	641.1	1.9456	3563.7	187.9	1.00	72.98	0.1255	229.8784	0.03065	3.3068	0.006057	87.57131	10.94641
	02-04-2015 02	98	99	1791.8	0.3510	628.9	1.9384	3473.3	183.8	1.00	71.39	0.1255	224.8709	0.029982	3.3068	0.005925	85.66375	10.70797
	02-04-2015 03	98	99	1777.9	0.3550	631.2	1.9449	3457.9	182.4	1.00	70.83	0.1255	223.1265	0.02975	3.3068	0.005879	84.9992	10.6249
	02-04-2015 04	98	99	1797.7	0.3460	622.0	1.9239	3458.6	184.4	1.00	71.62	0.1255	225.6114	0.030081	3.3068	0.005945	85.94582	10.74323
	02-04-2015 05	118	122	2185.7	0.3730	815.3	1.9365	4232.6	224.3	1.00	87.08	0.1255	274.3054	0.036573	3.3068	0.007228	104.4956	13.06195
	02-04-2015 06	158	161	2848.2	0.3820	1088.0	1.9538	5579.1	292.2	1.00	113.47	0.1255	357.4491	0.047659	3.3068	0.009418	136.1689	17.02112
	02-04-2015 07	167	171	2954.6	0.3840	1134.6	1.9519	5767.2	303.1	1.00	117.71	0.1255	370.8023	0.04944	3.3068	0.009777	141.2558	17.65697
	02-04-2015 08	158	164	2801.2	0.3600	1008.4	1.9410	5437.0	287.4	1.00	111.60	0.1255	351.5506	0.046873	3.3068	0.009263	133.9219	16.74024
	02-04-2015 09	130	139	2368.8	0.3820	904.9	1.9299	4571.6	243.0	1.00	94.37	0.1255	297.2844	0.039637	3.3068	0.007833	113.2494	14.15618
	02-04-2015 10	109	112	1991.0	0.4110	818.3	1.9137	3810.1	204.3	1.00	79.32	0.1255	249.8705	0.033316	3.3068	0.006584	95.18725	11.89841
	02-04-2015 11	99	100	1810.5	0.4180	756.8	1.8965	3433.7	185.8	1.00	72.13	0.1255	227.2178	0.030295	3.3068	0.005987	86.55777	10.81972
	02-04-2015 12	99	100	1817.8	0.4040	734.4	1.8942	3443.2	186.5	1.00	72.42	0.1255	228.1339	0.030417	3.3068	0.006011	86.90677	10.86335
	02-04-2015 13	100	100	1822.4	0.4020	732.6	1.8935	3450.7	185.6	1.00	72.61	0.1255	228.7112	0.030494	3.3068	0.006026	87.12669	10.89084
	02-04-2015 14	99	100	1808.9	0.4050	732.6	1.9111	3456.9	185.6	1.00	72.07	0.1255	227.017	0.030268	3.3068	0.005982	86.48127	10.81016
	02-04-2015 15	99	100	1812.7	0.4060	736.0	1.9018	3447.4	186.0	1.00	72.22	0.1255	227.4939	0.030332	3.3068	0.005994	86.66295	10.83287
	02-04-2015 16	99	100	1794.6	0.4100	735.8	1.9080	3424.1	184.1	1.00	71.50	0.1255	225.2223	0.030029	3.3068	0.005934	85.79761	10.7247
	02-04-2015 17	105	109	1930.7	0.3870	747.2	1.9052	3678.4	198.1	1.00	76.92	0.1255	242.3029	0.032307	3.3068	0.006384	92.30438	11.53805
	02-04-2015 18	125	135	2323.0	0.3680	854.9	1.9032	4421.2	238.3	1.00	92.55	0.1255	291.5365	0.038871	3.3068	0.007682	111.0598	13.88247
	02-04-2015 19	125	134	2303.4	0.3740	861.5	1.9023	4381.7	236.3	1.00	91.77	0.1255	289.0767	0.038543	3.3068	0.007617	110.1227	13.76534
	02-04-2015 20	123	131	2257.9	0.3730	842.2	1.9064	4304.4	231.7	1.00	89.96	0.1255	283.3665	0.037782	3.3068	0.007466	107.9474	13.49343
	02-04-2015 21	116	122	2110.5	0.3790	799.9	1.9114	4034.0	216.5	1.00	84.08	0.1255	264.8678	0.035315	3.3068	0.006979	100.9004	12.61255
	02-04-2015 22	103	107	1882.7	0.3420	643.9	1.8939	3565.7	193.2	1.00	75.01	0.1255	236.2789	0.031503	3.3068	0.006226	90.00956	11.2512
	02-04-2015 23	99	103	1831.7	0.3370	617.3	1.8867	3455.8	187.9	1.00	72.98	0.1255	229.8784	0.03065	3.3068	0.006057	87.57131	10.94841
	02-05-2015 00	99	100	1806.2	0.3370	608.7	1.8782	3392.4	185.3	1.00	71.96	0.1255	226.6781	0.030223	3.3068	0.005973	86.35219	10.79402
	02-05-2015 01	98	100	1795.3	0.3430	615.8	1.8890	3391.4	184.2	1.00	71.53	0.1255	225.3102	0.030041	3.3068	0.005937	85.83108	10.72888
	02-05-2015 02	99	100	1802.4	0.3390	611.0	1.8848	3397.1	184.9	1.00	71.81	0.1255	226.2012	0.03016	3.3068	0.00596	86.17052	10.77131
	02-05-2015 03	103	100	1844.3	0.3270	603.1	1.8861	3478.5	189.2	1.00	73.48	0.1255	231.4597	0.030861	3.3068	0.006099	88.17371	11.02171
	02-05-2015 04	98	100	1810.7	0.3370	610.2	1.8713	3383.4	185.8	1.00	72.14	0.1255	227.2429	0.030299	3.3068	0.005988	86.56733	10.82092
	02-05-2015 05	106	111	1981.1	0.3290	651.8	1.8897	3743.7	203.3	1.00	78.93	0.1255	248.6281	0.033315	3.3068	0.006551	94.71394	11.83924



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Date	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
	02-05-2015 06	138	141	2494.3	0.3740	932.9	4788.3	255.9	1.00	99.37	0.1255	313.0347	0.041737	3.3068	0.008248	119.2494	14.90618
	02-05-2015 07	148	151	2639.4	0.3900	1029.4	5114.9	270.8	1.00	105.16	0.1255	331.2447	0.044165	3.3068	0.008728	126.1865	15.77331
	02-05-2015 08	127	136	2372.5	0.4250	1008.3	4539.3	243.4	1.00	94.52	0.1255	297.7488	0.039699	3.3068	0.007845	113.4263	14.17829
	02-05-2015 09	135	147	2518.4	0.4090	1030.0	4856.7	258.4	1.00	100.33	0.1255	316.0592	0.042141	3.3068	0.008328	120.4016	15.0502
	02-05-2015 10	162	162	2885.3	0.3650	1053.1	5604.8	296.0	1.00	114.95	0.1255	362.1052	0.04828	3.3068	0.009541	137.9426	17.24283
	02-05-2015 11	168	170	3015.3	0.3590	1082.5	5867.0	309.4	1.00	120.13	0.1255	378.4202	0.050455	3.3068	0.009971	144.1578	18.01972
	02-05-2015 12	158	164	2851.6	0.3680	1049.4	5539.3	292.6	1.00	113.61	0.1255	357.8758	0.047716	3.3068	0.00943	136.3315	17.04143
	02-05-2015 13	145	150	2594.1	0.3790	983.2	5030.3	266.2	1.00	103.35	0.1255	325.5596	0.043407	3.3068	0.008578	124.0207	15.50259
	02-05-2015 14	129	136	2344.7	0.3950	921.5	4550.2	240.6	1.00	93.41	0.1255	294.2599	0.039234	3.3068	0.007753	112.0972	14.01215
	02-05-2015 15	123	132	2291.6	0.3810	873.1	4444.2	235.1	1.00	91.30	0.1255	287.5958	0.038345	3.3068	0.007578	109.5586	13.69482
	02-05-2015 16	120	126	2210.4	0.3890	859.8	4313.6	226.8	1.00	88.06	0.1255	277.4052	0.036987	3.3068	0.007309	105.6765	13.20956
	02-05-2015 17	145	160	2718.8	0.3800	1033.1	5337.2	279.0	1.00	108.32	0.1255	341.2094	0.045494	3.3068	0.00899	129.9825	16.24781
	02-05-2015 18	163	171	2962.6	0.3710	1099.1	5848.0	304.0	1.00	118.03	0.1255	371.8063	0.049573	3.3068	0.009797	141.5382	17.70478
	02-05-2015 19	169	175	3046.3	0.3710	1130.2	6029.6	312.5	1.00	121.37	0.1255	382.3107	0.050974	3.3068	0.010073	145.6398	18.20498
	02-05-2015 20	170	175	3052.8	0.3810	1163.1	6040.6	313.2	1.00	121.63	0.1255	383.1264	0.051083	3.3068	0.010095	145.9506	18.24382
	02-05-2015 21	170	175	3040.1	0.3740	1137.0	6030.2	311.9	1.00	121.12	0.1255	381.5326	0.05087	3.3068	0.010053	145.3434	18.16793
	02-05-2015 22	170	176	3063.8	0.3690	1130.5	6040.3	314.3	1.00	122.06	0.1255	384.5069	0.051267	3.3068	0.010131	146.4765	18.30956
	02-05-2015 23	164	169	2921.5	0.3760	1098.5	5825.7	299.8	1.00	116.39	0.1255	366.6483	0.048886	3.3068	0.009661	139.6733	17.45916
	02-06-2015 00	132	149	2488.7	0.3900	970.6	4951.2	255.3	1.00	99.15	0.1255	312.3319	0.041644	3.3068	0.00823	118.9817	14.87271
	02-06-2015 01	159	169	2910.4	0.3530	1027.4	5821.4	298.6	1.00	115.95	0.1255	365.2552	0.0487	3.3068	0.009624	139.1426	17.39283
	02-06-2015 02	170	161	2926.4	0.3670	1074.0	5884.2	300.3	1.00	116.59	0.1255	367.2632	0.048968	3.3068	0.009677	139.9076	17.48845
	02-06-2015 03	170	173	3026.7	0.3530	1068.4	6146.2	310.5	1.00	120.59	0.1255	379.8509	0.050646	3.3068	0.010009	144.7028	18.08785
	02-06-2015 04	161	164	2877.2	0.3510	1009.9	5881.5	295.2	1.00	114.63	0.1255	361.0886	0.048144	3.3068	0.009514	137.5554	17.19442
	02-06-2015 05	165	169	2957.1	0.3450	1020.2	6004.7	303.4	1.00	117.81	0.1255	371.1161	0.049481	3.3068	0.009778	141.3753	17.67191
	02-06-2015 06	171	174	3056.1	0.3560	1088.0	6252.5	313.6	1.00	121.76	0.1255	383.5406	0.051138	3.3068	0.010106	146.1084	18.26355
	02-06-2015 07	171	176	3061.9	0.3460	1059.4	6226.8	314.2	1.00	121.99	0.1255	384.2685	0.051235	3.3068	0.010125	146.3857	18.29821
	02-06-2015 08	171	177	3071.6	0.3490	1072.0	6162.9	315.1	1.00	122.37	0.1255	385.4858	0.051397	3.3068	0.010157	146.8494	18.35618
	02-06-2015 09	171	176	3051.7	0.3500	1068.1	6185.0	313.1	1.00	121.58	0.1255	382.9884	0.051064	3.3068	0.010091	145.898	18.23725
	02-06-2015 10	167	174	3001.0	0.3510	1053.4	6101.1	307.9	1.00	119.56	0.1255	376.6255	0.050216	3.3068	0.009924	143.4741	17.93426
	02-06-2015 11	160	170	2902.9	0.3370	978.3	5862.8	297.8	1.00	115.65	0.1255	364.314	0.048574	3.3068	0.009599	138.7841	17.34801
	02-06-2015 12	155	160	2737.1	0.3300	903.2	5538.7	280.8	1.00	109.05	0.1255	343.5061	0.0458	3.3068	0.009051	130.8574	16.35717
	02-06-2015 13	161	168	2881.9	0.3380	974.1	5853.1	295.7	1.00	114.82	0.1255	361.6785	0.048223	3.3068	0.00953	137.7801	17.22251
	02-06-2015 14	129	133	2301.4	0.3810	876.8	4692.1	236.1	1.00	91.69	0.1255	288.8257	0.038509	3.3068	0.00761	110.0271	13.75339
	02-06-2015 15	108	122	2058.7	0.3610	743.2	4154.2	211.2	1.00	82.02	0.1255	258.3669	0.034448	3.3068	0.006808	98.4239	12.30299
	02-06-2015 16	126	132	2303.1	0.3770	868.3	4659.3	236.3	1.00	91.76	0.1255	289.0391	0.038538	3.3068	0.007616	110.1084	13.76355
	02-06-2015 17	132	145	2460.8	0.3750	922.8	5016.8	252.5	1.00	98.04	0.1255	308.8304	0.041177	3.3068	0.008137	117.6478	14.70598
	02-06-2015 18	162	169	2901.9	0.3430	995.4	5933.8	297.7	1.00	115.61	0.1255	364.1885	0.048558	3.3068	0.009596	138.7363	17.34203
	02-06-2015 19	160	166	2869.5	0.3460	992.8	5835.5	294.4	1.00	114.32	0.1255	360.1223	0.048016	3.3068	0.009489	137.1873	17.14841
	02-06-2015 20	155	165	2798.1	0.3530	987.7	5716.9	287.1	1.00	111.48	0.1255	351.1616	0.046821	3.3068	0.009253	133.7737	16.72171
	02-06-2015 21	144	154	2635.5	0.3530	930.3	5351.7	270.4	1.00	105.00	0.1255	330.7553	0.0441	3.3068	0.008715	126	15.75
	02-06-2015 22	140	151	2567.3	0.3620	929.4	5234.5	263.4	1.00	102.28	0.1255	322.1962	0.042959	3.3068	0.008489	122.7394	15.34243
	02-06-2015 23	106	109	1928.1	0.3700	713.4	3880.4	197.8	1.00	76.82	0.1255	241.9766	0.032263	3.3068	0.006376	92.18008	11.52251
	02-07-2015 00	98	104	1830.5	0.3540	648.0	3684.6	187.8	1.00	72.93	0.1255	229.7278	0.03063	3.3068	0.006053	87.51394	10.93924
	02-07-2015 01	98	101	1804.5	0.3490	629.8	3646.0	185.1	1.00	71.89	0.1255	226.4648	0.030195	3.3068	0.005967	86.27092	10.78386
	02-07-2015 02	99	106	1865.3	0.3410	636.1	3741.1	191.4	1.00	74.31	0.1255	234.0952	0.031212	3.3068	0.006168	89.17769	11.14721
	02-07-2015 03	99	99	1805.8	0.3400	614.0	3619.3	185.3	1.00	71.94	0.1255	226.5279	0.030217	3.3068	0.005971	86.33307	10.79163
	02-07-2015 04	100	100	1814.3	0.3400	616.9	3640.5	186.1	1.00	72.28	0.1255	227.6947	0.030359	3.3068	0.005999	86.73944	10.84243



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

**January 1, 2015 through November 25, 2017**

Substation Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx-Lb/Hr	Common Stack SO2 (Lb/MMBtu)	Common Stack SO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (b/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/RTBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
Substation Date	02-07-2015 05	106	113	1976.1	0.3220	636.3	2.0123	3976.5	202.7	1.00	78.73	0.1255	248.0006	0.033066	3.3068	0.006535	94.4749	11.80936
	02-07-2015 06	102	109	1912.3	0.3430	655.9	2.0106	3844.8	196.2	1.00	76.19	0.1255	239.9937	0.031999	3.3068	0.006324	91.4247	11.42809
	02-07-2015 07	110	120	2073.5	0.3350	694.6	2.0078	4163.1	212.7	1.00	82.61	0.1255	260.2243	0.034696	3.3068	0.006857	99.1347	12.39143
	02-07-2015 08	125	138	2362.8	0.3430	810.4	2.0171	4765.9	242.4	1.00	94.14	0.1255	296.5314	0.039597	3.3068	0.007813	112.9625	14.12032
	02-07-2015 09	150	165	2826.3	0.3490	986.4	2.0173	5701.6	290.0	1.00	112.60	0.1255	354.7007	0.047293	3.3068	0.009346	135.1219	16.89024
	02-07-2015 10	148	150	2635.6	0.3600	948.8	2.0831	5358.4	270.4	1.00	105.00	0.1255	330.7678	0.044102	3.3068	0.008715	126.0048	15.7506
	02-07-2015 11	102	126	2072.0	0.4050	839.2	1.9950	4133.7	212.6	1.00	82.55	0.1255	260.036	0.034671	3.3068	0.006852	99.05976	12.38247
	02-07-2015 12	95	114	1920.7	0.3880	745.2	1.9860	3814.6	197.1	1.00	76.52	0.1255	241.0479	0.032139	3.3068	0.006351	91.87629	11.47829
	02-07-2015 13	93	101	1808.8	0.4050	732.6	1.9794	3580.4	185.6	1.00	72.06	0.1255	227.0044	0.030267	3.3068	0.005981	86.47649	10.80956
	02-07-2015 14	93	102	1802.8	0.4060	731.9	1.9809	3571.1	185.0	1.00	71.82	0.1255	226.2514	0.030166	3.3068	0.005961	86.18964	10.77371
	02-07-2015 15	94	101	1782.8	0.4300	766.6	1.9928	3552.7	182.9	1.00	71.03	0.1255	223.7414	0.029832	3.3068	0.005895	85.23347	10.65418
	02-07-2015 16	93	106	1811.7	0.4380	793.5	2.0006	3624.4	185.9	1.00	72.18	0.1255	227.3684	0.030315	3.3068	0.005991	86.61514	10.82689
	02-07-2015 17	93	101	1784.6	0.4360	778.1	1.9895	3550.4	183.1	1.00	71.10	0.1255	223.9673	0.029862	3.3068	0.005901	85.31952	10.66494
	02-07-2015 18	115	129	2204.1	0.4050	892.7	1.9975	4402.6	226.1	1.00	87.81	0.1255	276.6146	0.036881	3.3068	0.007288	105.3753	13.17191
	02-07-2015 19	110	102	1933.1	0.4330	837.0	1.9927	3852.0	198.3	1.00	77.02	0.1255	242.6041	0.032347	3.3068	0.006392	92.41912	11.55239
	02-07-2015 20	98	101	1820.8	0.3890	708.3	1.9937	3630.1	186.8	1.00	72.54	0.1255	228.5104	0.030468	3.3068	0.006021	87.0502	10.88127
	02-07-2015 21	98	105	1841.1	0.3820	703.3	2.0033	3688.2	188.9	1.00	73.35	0.1255	231.0581	0.030807	3.3068	0.006088	88.02072	11.00259
	02-07-2015 22	98	100	1797.5	0.3720	668.7	1.9939	3584.1	184.4	1.00	71.61	0.1255	225.5863	0.030078	3.3068	0.005944	85.98625	10.74203
	02-07-2015 23	98	100	1808.0	0.3450	623.8	1.9947	3606.5	185.5	1.00	72.03	0.1255	226.904	0.030253	3.3068	0.005979	86.43825	10.80478
	02-08-2015 00	98	100	1821.1	0.3400	619.2	1.9955	3634.0	186.8	1.00	72.55	0.1255	228.5481	0.030473	3.3068	0.006022	87.06454	10.88307
	02-08-2015 01	97	100	1787.3	0.3530	630.9	1.9899	3572.7	183.4	1.00	71.21	0.1255	224.3062	0.029907	3.3068	0.00591	85.44861	10.68108
	02-08-2015 02	98	100	1824.0	0.3480	634.8	1.9862	3622.8	187.1	1.00	72.67	0.1255	228.912	0.030521	3.3068	0.006032	87.20319	10.9004
	02-08-2015 03	98	99	1786.1	0.3550	634.1	1.9863	3547.7	183.2	1.00	71.16	0.1255	224.1556	0.029887	3.3068	0.005906	85.39124	10.6739
	02-08-2015 04	98	99	1794.8	0.3580	642.5	1.9801	3553.8	184.1	1.00	71.51	0.1255	225.2474	0.030033	3.3068	0.005935	85.80717	10.7259
	02-08-2015 05	98	99	1784.6	0.3570	637.1	1.9795	3532.6	183.1	1.00	71.10	0.1255	223.9673	0.029862	3.3068	0.005901	85.31952	10.66494
	02-08-2015 06	97	100	1788.0	0.3620	647.3	1.9918	3561.4	183.7	1.00	71.24	0.1255	224.394	0.029919	3.3068	0.005913	85.48207	10.68526
	02-08-2015 07	98	100	1790.3	0.3600	644.5	1.9899	3562.5	183.7	1.00	71.33	0.1255	224.6827	0.029957	3.3068	0.005886	85.0996	10.63745
	02-08-2015 08	97	100	1780.0	0.3530	628.3	1.9919	3545.6	182.6	1.00	70.92	0.1255	223.39	0.029785	3.3068	0.005886	85.0996	10.63745
	02-08-2015 09	98	100	1806.4	0.3470	626.8	1.9804	3577.4	185.3	1.00	71.97	0.1255	226.7032	0.030227	3.3068	0.005973	86.36175	10.79522
	02-08-2015 10	98	101	1824.6	0.3470	633.1	1.9854	3622.5	187.2	1.00	72.69	0.1255	228.9873	0.030531	3.3068	0.006034	87.23187	10.90398
02-08-2015 11	98	104	1826.7	0.3510	641.2	1.9920	3638.8	187.4	1.00	72.78	0.1255	229.2509	0.030566	3.3068	0.00604	87.33227	10.91653	
02-08-2015 12	98	100	1796.8	0.3490	627.1	1.9867	3569.7	184.4	1.00	71.59	0.1255	225.4984	0.030066	3.3068	0.005942	85.90279	10.73785	
02-08-2015 13	98	100	1789.4	0.3510	628.1	1.9843	3550.7	183.6	1.00	71.29	0.1255	224.5697	0.029942	3.3068	0.005917	85.549	10.69363	
02-08-2015 14	97	100	1790.8	0.3480	623.2	1.9823	3549.9	183.7	1.00	71.35	0.1255	224.7454	0.029966	3.3068	0.005922	85.61594	10.70199	
02-08-2015 15	97	100	1786.1	0.3480	621.6	1.9844	3544.3	183.3	1.00	71.16	0.1255	224.1556	0.029887	3.3068	0.005906	85.39124	10.6739	
02-08-2015 16	97	100	1793.9	0.3510	629.7	1.9804	3552.6	184.1	1.00	71.47	0.1255	225.1345	0.030017	3.3068	0.005932	85.76414	10.72052	
02-08-2015 17	97	100	1792.6	0.3490	625.6	1.9890	3565.5	183.9	1.00	71.42	0.1255	224.9713	0.029996	3.3068	0.005928	85.70199	10.71275	
02-08-2015 18	97	100	1794.2	0.3490	626.2	1.9770	3547.2	184.1	1.00	71.48	0.1255	225.1721	0.030022	3.3068	0.005933	85.77849	10.72231	
02-08-2015 19	97	100	1791.5	0.3500	627.0	1.9853	3556.7	183.8	1.00	71.37	0.1255	224.8333	0.029977	3.3068	0.005924	85.6494	10.70618	
02-08-2015 20	98	101	1801.8	0.3490	628.8	1.9920	3589.2	184.9	1.00	71.78	0.1255	226.1259	0.03015	3.3068	0.005958	86.14183	10.76773	
02-08-2015 21	98	103	1820.0	0.3460	629.7	1.9883	3618.7	186.7	1.00	72.51	0.1255	228.41	0.030454	3.3068	0.006018	87.01195	10.87649	
02-08-2015 22	98	100	1792.2	0.3480	623.7	1.9903	3567.0	183.9	1.00	71.40	0.1255	224.9211	0.029989	3.3068	0.005926	85.68287	10.71036	
02-08-2015 23	98	100	1795.2	0.3490	626.5	1.9817	3557.6	184.2	1.00	71.52	0.1255	225.2976	0.030039	3.3068	0.005936	85.82629	10.72829	
02-09-2015 00	97	99	1791.0	0.3490	625.1	1.9857	3556.4	183.8	1.00	71.35	0.1255	224.7705	0.029969	3.3068	0.005922	85.6255	10.70319	
02-09-2015 01	98	100	1791.1	0.3460	619.7	1.9867	3558.4	183.8	1.00	71.36	0.1255	224.7831	0.029971	3.3068	0.005923	85.63028	10.70378	
02-09-2015 02	98	100	1799.0	0.3420	615.3	1.9930	3585.4	184.6	1.00	71.67	0.1255	225.7745	0.030103	3.3068	0.005949	86.00797	10.751	
02-09-2015 03	97	100	1796.6	0.3450	619.8	1.9930	3580.6	184.3	1.00	71.58	0.1255	225.4733	0.030063	3.3068	0.005941	85.89323	10.73665	



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017**

Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Sub-Record Data														
			Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/HR)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
02-09-2015 04	98	100	1795.4	0.3430	615.8	1.9963	3584.2	184.2	1.00	71.53	0.1255	225.3227	0.030043	3.3068	0.005937	85.83586	10.72948
02-09-2015 05	98	100	1799.3	0.3370	606.4	1.9734	3550.7	184.6	1.00	71.69	0.1255	225.8122	0.030108	3.3068	0.00595	86.02231	10.75279
02-09-2015 06	109	119	2084.3	0.3240	675.3	1.9965	4161.4	213.9	1.00	83.04	0.1255	261.5797	0.034877	3.3068	0.006892	99.64781	12.45598
02-09-2015 07	120	127	2241.8	0.3790	849.6	2.0023	4488.7	230.0	1.00	89.31	0.1255	281.3459	0.037512	3.3068	0.007413	107.1777	13.39721
02-09-2015 08	126	130	2291.0	0.3870	886.6	2.0022	4587.1	235.1	1.00	91.27	0.1255	287.5205	0.038335	3.3068	0.007576	109.5299	13.69124
02-09-2015 09	127	148	2473.3	0.4010	991.8	2.0049	4958.6	253.8	1.00	98.54	0.1255	310.3992	0.041386	3.3068	0.008179	118.2454	14.78068
02-09-2015 10	127	146	2453.0	0.3890	954.2	1.9850	4869.2	251.7	1.00	97.73	0.1255	307.8515	0.041046	3.3068	0.008112	117.2749	14.65936
02-09-2015 11	126	145	2449.9	0.3780	926.1	1.9882	4870.8	251.4	1.00	97.61	0.1255	307.4625	0.040994	3.3068	0.008101	117.1267	14.64084
02-09-2015 12	127	131	2320.7	0.3770	874.9	1.9972	4634.9	238.1	1.00	92.46	0.1255	291.2479	0.038832	3.3068	0.007674	110.9498	13.86873
02-09-2015 13	125	102	2072.8	0.4060	841.6	1.9766	4097.2	212.7	1.00	82.58	0.1255	260.1364	0.034684	3.3068	0.006854	99.09801	12.38725
02-09-2015 14	120	101	2009.5	0.4050	813.8	1.9867	3992.2	206.2	1.00	80.06	0.1255	252.1923	0.033625	3.3068	0.006645	96.07171	12.00896
02-09-2015 15	108	112	1997.3	0.3650	729.0	1.9803	3955.3	204.9	1.00	79.57	0.1255	250.6612	0.033421	3.3068	0.006605	95.48845	11.93606
02-09-2015 16	102	109	1911.9	0.3610	693.8	1.9753	3796.4	197.2	1.00	76.57	0.1255	241.1985	0.032159	3.3068	0.006355	91.88367	11.48546
02-09-2015 17	128	105	2126.8	0.3660	778.4	1.9576	4163.5	218.2	1.00	84.73	0.1255	266.9134	0.035588	3.3068	0.007093	101.6797	12.70996
02-09-2015 18	134	118	2267.3	0.3760	852.5	1.9592	4442.1	232.6	1.00	90.33	0.1255	284.5462	0.037939	3.3068	0.007497	108.3968	13.5496
02-09-2015 19	134	130	2380.6	0.3610	859.4	1.9444	4628.8	244.2	1.00	94.84	0.1255	325.1078	0.043347	3.3068	0.008566	123.8486	15.48108
02-09-2015 20	147	140	2590.5	0.3440	891.1	1.9370	5017.7	265.8	1.00	103.21	0.1255	338.2351	0.045097	3.3068	0.008912	128.8494	16.10618
02-09-2015 21	143	159	2695.1	0.3600	970.2	1.9394	5226.9	276.5	1.00	107.37	0.1255	358.2351	0.045097	3.3068	0.00895	99.68606	12.46076
02-09-2015 22	115	118	2085.1	0.4020	838.2	1.9712	4005.8	213.9	1.00	83.07	0.1255	261.6801	0.03489	3.3068	0.006251	90.38247	11.2781
02-09-2015 23	102	107	1890.5	0.3940	744.9	1.8905	3573.9	194.0	1.00	75.32	0.1255	237.2578	0.031634	3.3068	0.006118	88.45578	11.05697
02-10-2015 00	100	103	1850.2	0.3870	716.0	1.8924	3482.8	189.8	1.00	73.71	0.1255	232.2001	0.03096	3.3068	0.006256	90.44462	11.30558
02-10-2015 01	102	105	1891.8	0.3670	694.3	1.8702	3538.0	194.1	1.00	75.37	0.1255	237.4209	0.031656	3.3068	0.0061	88.18805	11.02351
02-10-2015 02	99	101	1844.6	0.3810	702.8	1.8600	3431.0	189.3	1.00	73.49	0.1255	231.4973	0.030866	3.3068	0.006404	92.59124	11.5739
02-10-2015 03	103	108	1936.7	0.3630	703.0	1.8600	3602.2	198.7	1.00	77.16	0.1255	243.0559	0.032407	3.3068	0.006213	89.82311	11.22789
02-10-2015 04	99	105	1878.8	0.3790	712.1	1.8505	3476.8	192.8	1.00	74.85	0.1255	235.7894	0.031438	3.3068	0.006891	99.62869	12.45359
02-10-2015 05	109	120	2083.9	0.3540	737.7	1.8369	3828.0	213.8	1.00	83.02	0.1255	261.5295	0.03487	3.3068	0.006981	131.2876	16.41096
02-10-2015 06	144	160	2746.1	0.3700	1016.1	1.8802	5163.3	315.7	1.00	109.41	0.1255	344.6356	0.045951	3.3068	0.009081	147.1219	18.39024
02-10-2015 07	170	176	3077.3	0.3980	1224.8	1.8794	5783.5	315.7	1.00	122.60	0.1255	386.2012	0.051493	3.3068	0.010176	147.1219	18.39024
02-10-2015 08	156	174	2923.4	0.3730	1090.4	1.8730	5475.6	299.9	1.00	116.47	0.1255	366.8867	0.048917	3.3068	0.009667	139.7641	17.47052
02-10-2015 09	153	153	2730.9	0.3440	939.4	1.8629	5087.4	280.2	1.00	108.80	0.1255	342.728	0.045696	3.3068	0.00903	130.561	16.32012
02-10-2015 10	167	171	3020.9	0.3600	1087.5	1.8622	5625.5	309.9	1.00	120.35	0.1255	379.123	0.050549	3.3068	0.009989	144.4255	18.05319
02-10-2015 11	169	173	3030.9	0.3640	1103.2	1.8568	5627.7	311.0	1.00	120.75	0.1255	380.378	0.050716	3.3068	0.010022	144.9036	18.11295
02-10-2015 12	149	145	2612.0	0.3280	856.7	1.8631	4866.3	268.0	1.00	104.06	0.1255	327.806	0.043707	3.3068	0.008637	124.8765	15.60956
02-10-2015 13	136	144	2506.8	0.3360	842.3	1.8750	4700.2	257.2	1.00	99.87	0.1255	314.6034	0.041946	3.3068	0.008289	119.847	14.98088
02-10-2015 14	106	116	2006.9	0.3300	662.3	1.8622	3737.2	205.9	1.00	79.96	0.1255	251.866	0.033582	3.3068	0.006636	95.94741	11.99343
02-10-2015 15	99	102	1846.4	0.3070	566.8	1.8389	3395.4	189.4	1.00	73.56	0.1255	231.7232	0.030896	3.3068	0.006106	88.2741	11.03426
02-10-2015 16	101	101	1862.2	0.2950	549.3	1.8391	3424.8	191.1	1.00	74.19	0.1255	233.7061	0.031116	3.3068	0.006158	89.02948	11.12869
02-10-2015 17	130	117	2254.4	0.3060	689.8	1.8796	4237.4	231.3	1.00	89.82	0.1255	282.9272	0.037723	3.3068	0.007455	107.7801	13.47251
02-10-2015 18	157	164	2863.8	0.3450	988.0	1.8852	5398.9	293.8	1.00	114.10	0.1255	359.4069	0.04792	3.3068	0.009947	136.9147	17.11434
02-10-2015 19	148	167	2823.4	0.3460	976.9	1.8764	5297.7	289.7	1.00	112.49	0.1255	354.3367	0.047244	3.3068	0.009336	134.9833	16.87291
02-10-2015 20	148	170	2852.6	0.3430	978.4	1.8773	5355.3	292.7	1.00	113.65	0.1255	358.0013	0.047733	3.3068	0.009433	136.3793	17.04741
02-10-2015 21	150	156	2732.1	0.3450	942.6	1.8930	5144.6	280.3	1.00	108.85	0.1255	342.8786	0.045716	3.3068	0.009034	130.6183	16.32729
02-10-2015 22	107	116	2017.4	0.3570	720.2	1.8542	3740.7	200.3	1.00	80.37	0.1255	253.1837	0.033757	3.3068	0.006671	96.4494	12.05618
02-10-2015 23	99	104	1855.3	0.3370	625.2	1.8509	3433.9	190.3	1.00	73.92	0.1255	232.8402	0.031045	3.3068	0.006135	88.6996	11.08745
02-11-2015 00	95	102	1828.8	0.3310	605.3	1.8515	3386.0	187.6	1.00	72.86	0.1255	229.5144	0.030601	3.3068	0.006047	87.43267	10.92908
02-11-2015 01	94	119	1964.5	0.3310	650.2	1.8496	3633.5	201.6	1.00	78.27	0.1255	246.5448	0.032872	3.3068	0.006496	93.92032	11.74004
02-11-2015 02	107	96	1886.0	0.3190	601.6	1.8677	3522.5	193.5	1.00	75.14	0.1255	236.693	0.031559	3.3068	0.006237	90.16733	11.27092



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substance	Date	Year	Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (percent)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
Sulfur Dioxide	02-11-2015	03	98	1910.6	0.3250	620.9	1.8933	3617.4	196.0	1.00	76.12	0.1255	239.7803	0.03197	3.3068	0.006318	91.34343	11.41793
		04	109	1930.4	0.3190	615.8	1.8995	3666.8	198.1	1.00	76.91	0.1255	242.2652	0.032302	3.3068	0.006383	92.29004	11.59625
		05	118	2221.6	0.3260	724.2	1.9247	4275.9	227.9	1.00	88.51	0.1255	278.8108	0.037174	3.3068	0.007346	106.212	13.27649
		06	159	2975.6	0.3630	1080.1	1.9467	5792.7	305.3	1.00	118.55	0.1255	373.4378	0.049791	3.3068	0.00984	142.2598	17.78247
		07	165	3062.9	0.3920	1200.7	1.9440	5954.4	314.3	1.00	122.03	0.1255	384.394	0.051252	3.3068	0.010128	146.4335	18.30418
		08	164	3037.1	0.3880	1178.4	1.9569	5943.2	311.6	1.00	121.00	0.1255	381.1561	0.05082	3.3068	0.010043	145.2	18.15
		09	151	2890.6	0.3780	1092.6	1.9674	5687.1	296.6	1.00	115.16	0.1255	362.7703	0.048369	3.3068	0.009559	138.196	17.2745
		10	132	2499.4	0.4150	1037.3	1.9579	4893.6	256.4	1.00	99.58	0.1255	313.6747	0.041823	3.3068	0.008265	119.4932	14.93665
		11	124	2371.8	0.4240	1005.6	1.9451	4613.4	243.3	1.00	94.49	0.1255	297.6609	0.039687	3.3068	0.007843	113.3928	14.1741
		12	140	2372.8	0.3870	918.3	1.9457	4616.7	243.4	1.00	94.53	0.1255	297.7864	0.039704	3.3068	0.007846	113.4406	14.18008
		13	94	1833.1	0.3140	575.6	1.9216	3522.5	188.1	1.00	73.03	0.1255	230.0541	0.030673	3.3068	0.006062	87.63825	10.95478
		14	76	1650.4	0.2350	420.9	1.9113	3154.4	169.3	1.00	67.88	0.1255	213.8269	0.02851	3.3068	0.005634	81.45657	9.862948
		15	79	1703.8	0.2370	403.8	1.9259	3281.3	174.8	1.00	65.75	0.1255	207.1252	0.027616	3.3068	0.005457	78.90359	9.862948
		16	112	2255.3	0.2840	640.5	1.9962	4502.1	231.4	1.00	89.85	0.1255	283.0402	0.037738	3.3068	0.007458	107.8231	13.47789
		17	125	2418.1	0.3540	856.0	1.9942	4822.2	248.1	1.00	96.34	0.1255	303.4716	0.040462	3.3068	0.007996	115.6064	14.4508
		18	133	2632.5	0.3400	895.1	2.0161	5307.3	270.1	1.00	104.88	0.1255	330.3788	0.04405	3.3068	0.008705	125.8566	15.73207
Nitrogen Dioxide	02-11-2015	19	140	2761.9	0.3920	917.0	2.0399	5633.9	283.4	1.00	110.04	0.1255	346.6185	0.046215	3.3068	0.009133	132.043	16.50538
		20	137	2683.0	0.3340	896.1	2.0327	5453.8	275.3	1.00	106.89	0.1255	336.7165	0.044895	3.3068	0.008872	128.2709	16.03886
		21	135	2549.1	0.3260	831.0	2.0530	5233.2	261.5	1.00	101.56	0.1255	319.9121	0.042654	3.3068	0.008429	121.8693	15.23367
		22	127	2287.3	0.3400	777.7	2.0556	4701.8	234.7	1.00	91.13	0.1255	278.5975	0.037146	3.3068	0.007341	106.1307	13.26633
		23	126	2219.9	0.3360	745.9	2.0686	4592.0	227.8	1.00	88.44	0.1255	285.5808	0.034077	3.3068	0.00734	97.36255	12.17032
		00	112	2036.5	0.3480	708.7	2.0628	4200.8	208.9	1.00	81.14	0.1255	255.5808	0.030923	3.3068	0.006111	88.3506	11.04382
		01	98	1848.0	0.3310	611.7	2.0407	3771.3	189.6	1.00	73.63	0.1255	231.924	0.030923	3.3068	0.006079	87.88207	10.98526
		02	98	1838.2	0.3280	602.9	2.0538	3775.3	188.6	1.00	73.24	0.1255	230.6941	0.030759	3.3068	0.006091	88.06853	11.00857
		03	98	1842.1	0.3370	620.8	2.0603	3795.3	189.0	1.00	73.39	0.1255	231.1836	0.030824	3.3068	0.006091	88.06853	11.00857
		04	98	1838.6	0.3370	619.6	2.0624	3792.0	188.6	1.00	73.25	0.1255	230.7443	0.030765	3.3068	0.00608	87.9012	10.98765
		05	98	1839.2	0.3880	713.8	2.0649	3797.7	188.7	1.00	73.27	0.1255	230.8196	0.030775	3.3068	0.006082	87.92988	10.99124
		06	106	1966.1	0.3880	723.8	2.0837	4096.8	201.7	1.00	78.33	0.1255	246.7456	0.032899	3.3068	0.006501	93.99681	11.7496
		07	134	2307.2	0.3720	858.3	2.0873	4815.9	236.7	1.00	91.97	0.1255	289.5536	0.038607	3.3068	0.007629	110.3044	13.78805
		08	154	2636.7	0.4040	1065.2	2.0812	5487.5	270.5	1.00	105.05	0.1255	330.9059	0.04412	3.3068	0.008719	126.0574	15.75717
		09	168	3017.5	0.4200	1267.4	2.0888	6303.1	309.6	1.00	120.62	0.1255	378.6963	0.050492	3.3068	0.009978	144.2629	18.03287
		10	169	3027.5	0.4260	1289.7	2.0931	6396.9	310.6	1.00	120.62	0.1255	379.9513	0.050659	3.3068	0.010011	144.741	18.09263
Carbon Monoxide	02-12-2015	11	157	2876.3	0.4080	1153.1	2.0836	5883.9	290.0	1.00	112.60	0.1255	354.7007	0.047293	3.3068	0.009346	135.1219	16.89024
		12	167	2965.6	0.4030	1195.1	2.0985	6223.4	304.3	1.00	118.45	0.1255	372.1828	0.049624	3.3068	0.009807	141.7817	17.72271
		13	170	3002.6	0.4200	1261.1	2.1118	6340.9	308.1	1.00	119.63	0.1255	376.8263	0.050243	3.3068	0.009929	143.5506	17.94382
		14	170	3022.4	0.4230	1278.5	2.1109	6380.1	310.1	1.00	120.41	0.1255	379.3112	0.050574	3.3068	0.009994	144.4972	18.06215
		15	157	2770.0	0.3920	1085.8	2.1061	5833.8	284.2	1.00	110.36	0.1255	347.635	0.046351	3.3068	0.00916	132.4303	16.55378
		16	137	2502.4	0.3960	991.0	2.0897	5229.3	256.7	1.00	99.70	0.1255	314.0512	0.041873	3.3068	0.008275	119.6367	14.95458
		17	154	2619.4	0.4120	1079.2	2.0801	5448.6	268.8	1.00	104.36	0.1255	328.7347	0.043831	3.3068	0.008662	125.2303	15.65378
		18	168	3007.5	0.4070	1256.6	2.0656	6377.6	316.8	1.00	123.01	0.1255	387.4813	0.051663	3.3068	0.01021	147.6096	18.4512
		19	175	3087.5	0.4100	1271.5	2.0677	6412.7	318.2	1.00	123.56	0.1255	389.2132	0.051894	3.3068	0.010255	148.2693	18.53367
		20	167	3099.9	0.4120	1277.2	2.0717	6422.0	318.1	1.00	123.50	0.1255	389.0375	0.051871	3.3068	0.010251	148.2024	18.5253
		21	155	3013.8	0.4020	1211.5	2.0753	6254.6	309.2	1.00	120.07	0.1255	378.2319	0.050043	3.3068	0.009966	144.0861	18.01076
		22	172	2914.5	0.4160	1212.4	2.0968	6111.2	299.4	1.00	115.12	0.1255	365.7698	0.048769	3.3068	0.009638	139.3386	17.41733
		23	150	2869.6	0.4040	1159.3	2.0999	6026.6	294.0	1.00	114.33	0.1255	360.1348	0.048017	3.3068	0.009489	137.192	17.149
		00	167	2494.7	0.4010	1000.4	2.0942	5224.4	256.0	1.00	99.39	0.1255	313.0849	0.041744	3.3068	0.008249	119.2685	14.90857
		01	172	2446.7	0.3700	905.3	2.0846	5100.4	251.0	1.00	97.48	0.1255	307.0609	0.040941	3.3068	0.008091	116.9737	14.62171



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50255 (Current Date)	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack CO2 (Tons/Hr)	Unit Operation (In/Out)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/Hr)	Mercury (lb/TSU)	HCl (lb/hr)	HF (lb/hr)		
TRUE	02-13-2015 02	134	171	2784.8	0.3790	1055.4	2.0892	5818.0	285.7	1.00	110.95	0.1255	349.4924	0.046598	3.3068	0.009209	133.1378	16.54223
	02-13-2015 03	159	173	2971.8	0.4000	1198.7	2.1041	6253.0	304.9	1.00	118.40	0.1255	372.9609	0.049727	3.3068	0.009827	142.0781	17.75976
	02-13-2015 04	164	175	3032.9	0.4180	1267.8	2.0962	6357.6	311.2	1.00	120.83	0.1255	380.629	0.05075	3.3068	0.010029	144.9992	18.1249
	02-13-2015 05	167	170	3067.6	0.3910	1193.4	2.0882	6405.9	314.7	1.00	122.22	0.1255	384.9838	0.05133	3.3068	0.010144	146.6582	18.33227
TRUE	02-13-2015 06	158	136	2856.9	0.4160	1188.5	2.0846	5955.6	293.1	1.00	113.82	0.1255	358.541	0.047805	3.3068	0.009447	136.5849	17.07311
	02-13-2015 07	122	94	2136.3	0.3880	828.5	2.0778			1.00	87.13	0.1255	274.456	0.036594	3.3068	0.007232	104.553	13.06912
	02-13-2015 08	98	91	1874.4	0.3420	641.0	2.0700	3880.0	192.3	1.00	74.68	0.1255	235.2372	0.031364	3.3068	0.006198	89.61275	11.20159
	02-13-2015 09	90	126	2076.1	0.3850	799.3	2.0854	4329.6	213.0	1.00	82.71	0.1255	260.5506	0.03474	3.3068	0.006865	99.25578	12.40697
TRUE	02-13-2015 10	102	106	1962.2	0.3620	710.3	2.0872	4095.5	201.3	1.00	78.18	0.1255	246.2561	0.032834	3.3068	0.006489	93.81036	11.72629
	02-13-2015 11	138	128	2472.6	0.4100	1013.8	2.1143	5227.9	253.7	1.00	98.51	0.1255	310.3113	0.041374	3.3068	0.008176	118.212	14.77649
	02-13-2015 12	169	170	3054.3	0.3910	1194.2	2.1252	6490.9	313.4	1.00	121.69	0.1255	383.3147	0.051108	3.3068	0.0101	146.0223	18.25279
	02-13-2015 13	170	171	3046.7	0.3810	1160.8	2.1257	6476.4	312.6	1.00	121.38	0.1255	382.3609	0.050981	3.3068	0.010075	145.659	18.20737
TRUE	02-13-2015 14	150	142	2625.4	0.3730	979.3	2.1171	5553.3	269.4	1.00	104.60	0.1255	329.4877	0.043931	3.3068	0.008682	125.5171	15.68964
	02-13-2015 15	128	140	2446.4	0.4050	990.8	2.1050	5149.6	251.0	1.00	97.47	0.1255	307.0232	0.040936	3.3068	0.00809	116.9594	14.61992
	02-13-2015 16	151	163	2863.2	0.3710	1062.2	2.0983	6007.8	293.8	1.00	114.07	0.1255	359.3316	0.04791	3.3068	0.009468	136.8861	17.11076
	02-13-2015 17	153	131	2595.8	0.3610	937.1	2.1050	5464.1	266.3	1.00	103.42	0.1255	325.7729	0.043436	3.3068	0.008584	124.102	15.51275
TRUE	02-13-2015 18	164	127	2661.9	0.3640	968.9	2.1083	5612.0	273.1	1.00	106.05	0.1255	334.0685	0.044542	3.3068	0.008802	147.2622	15.90777
	02-13-2015 19	166	165	3037.2	0.3920	1190.6	2.1017	6383.2	311.6	1.00	121.00	0.1255	381.1886	0.050822	3.3068	0.010043	145.2048	18.1506
	02-13-2015 20	170	170	3095.9	0.3920	1213.6	2.1117	6537.7	317.6	1.00	123.34	0.1255	388.5355	0.051804	3.3068	0.010237	148.0112	18.50139
	02-13-2015 21	171	155	2981.7	0.3740	1115.2	2.1208	6323.7	305.9	1.00	118.79	0.1255	374.2034	0.049893	3.3068	0.00986	142.5514	17.81892
TRUE	02-13-2015 22	170	136	2820.3	0.3570	1006.8	2.1083	5945.9	289.4	1.00	112.36	0.1255	353.9477	0.047192	3.3068	0.009326	134.8351	16.85438
	02-13-2015 23	169	136	2832.7	0.3570	1011.3	2.0938	5931.2	290.6	1.00	112.86	0.1255	355.5039	0.0474	3.3068	0.009367	135.4279	16.92849
	02-14-2015 00	128	135	2438.1	0.3600	877.7	2.0966	5111.7	250.1	1.00	97.14	0.1255	305.9816	0.040797	3.3068	0.008062	115.5625	14.57032
	02-14-2015 01	98	76	1643.3	0.3840	631.0	1.9426	3192.2	168.6	1.00	65.47	0.1255	206.2342	0.027497	3.3068	0.005434	78.56414	9.820518
TRUE	02-14-2015 02	128	0	1319.6	0.4460	588.5	2.0365	2687.4	135.4	1.00	52.57	0.1255	165.6098	0.022081	3.3068	0.004364	63.08845	7.886056
	02-14-2015 03	168	0	1684.3	0.4660	775.6	2.0445	3402.6	170.8	1.00	66.31	0.1255	208.8697	0.027849	3.3068	0.005503	79.58813	9.946016
	02-14-2015 04	161	0	1603.6	0.4380	702.4	2.0518	3290.2	164.5	1.00	63.89	0.1255	201.2518	0.026833	3.3068	0.005303	76.66614	9.583267
	02-14-2015 05	165	0	1618.2	0.4300	695.8	2.0418	3304.0	166.0	1.00	64.47	0.1255	203.0841	0.027077	3.3068	0.005351	77.36414	9.670518
TRUE	02-14-2015 06	165	0	1660.4	0.4250	705.7	2.0319	3373.7	170.4	1.00	66.15	0.1255	208.3802	0.027784	3.3068	0.005491	79.38167	9.922709
	02-14-2015 07	166	0	1629.5	0.4430	721.9	2.0693	3371.9	167.2	1.00	64.92	0.1255	204.5023	0.027267	3.3068	0.005388	77.90438	9.738048
	02-14-2015 08	166	0	1630.1	0.4420	720.5	2.0629	3362.7	167.2	1.00	64.94	0.1255	204.5776	0.027277	3.3068	0.005339	77.93307	9.741633
	02-14-2015 09	165	0	1642.7	0.4410	724.4	2.0645	3391.3	168.5	1.00	65.45	0.1255	206.1589	0.027487	3.3068	0.005432	78.53546	9.816932
TRUE	02-14-2015 10	165	0	1540.7	0.4390	692.2	2.1009	3236.8	158.1	1.00	61.38	0.1255	193.3579	0.025781	3.3068	0.005095	73.65896	9.207371
	02-14-2015 11	146	0	1406.9	0.4330	609.2	2.0753	2919.8	144.3	1.00	56.05	0.1255	176.566	0.023542	3.3068	0.004652	67.26215	8.407769
	02-14-2015 12	157	0	1514.4	0.4270	645.6	2.0972	3176.0	155.4	1.00	60.33	0.1255	190.0572	0.025341	3.3068	0.005008	72.40159	9.050199
	02-14-2015 13	158	0	1495.7	0.4580	685.0	2.0729	3100.5	153.5	1.00	59.59	0.1255	187.7104	0.025028	3.3068	0.004946	71.50757	8.938446
TRUE	02-14-2015 14	153	0	1482.0	0.4490	665.4	2.0661	3062.0	152.0	1.00	60.03	0.1255	190.0572	0.025341	3.3068	0.005008	72.40159	9.050199
	02-14-2015 15	154	0	1488.1	0.4520	672.6	2.0602	3065.8	152.7	1.00	60.33	0.1255	190.0572	0.025341	3.3068	0.005008	72.40159	9.050199
	02-14-2015 16	163	0	1570.8	0.4710	739.8	2.0562	3229.9	151.2	1.00	62.58	0.1255	197.1354	0.026284	3.3068	0.004901	71.50757	8.938446
	02-14-2015 17	148	0	1449.6	0.4530	656.7	2.0266	2937.7	148.7	1.00	59.29	0.1255	186.7566	0.0249	3.3068	0.004921	71.14422	8.893028
TRUE	02-14-2015 18	165	0	1605.1	0.4790	768.8	2.0473	3286.2	164.7	1.00	63.95	0.1255	201.4401	0.026858	3.3068	0.004793	69.30359	8.662348
	02-14-2015 19	164	0	1602.5	0.4870	780.4	2.0371	3264.4	164.4	1.00	63.84	0.1255	201.1138	0.026815	3.3068	0.005299	76.61355	9.576693
	02-14-2015 20	160	0	1559.5	0.4780	745.4	2.0427	3185.6	160.0	1.00	62.13	0.1255	195.7173	0.026095	3.3068	0.005157	74.55777	9.319721
	02-14-2015 21	163	0	1585.3	0.4680	741.9	2.0504	3250.5	162.7	1.00	63.16	0.1255	198.9552	0.026527	3.3068	0.005242	75.79124	9.473904
TRUE	02-14-2015 22	155	0	1524.4	0.4540	692.1	2.0475	3212.2	156.4	1.00	60.73	0.1255	191.3122	0.025508	3.3068	0.005041	72.87968	9.10996
	02-14-2015 23	163	0	1570.0	0.4630	726.9	2.0672	3245.5	161.1	1.00	62.55	0.1255	197.035	0.026271	3.3068	0.005192	75.05976	9.38247
	02-15-2015 00	123	0	1185.0	0.4880	578.3	2.0569	2437.4	121.6	1.00	47.21	0.1255	148.7175	0.019829	3.3068	0.003919	56.65339	7.081673



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 25, 2017

STB System Data	Date/Hour	Y101 Gross Load MW	Y102 Gross Load MW	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack SO2 (Lb/MMBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
		Value	Value															
02-15-2015	01	98	0	968.6	0.4390	425.2	2.0552	1990.7	99.4	1.00	38.59	0.1255	121.5593	0.016208	3.3068	0.003203	46.30757	5.788446
	02	134	0	1324.4	0.4200	556.2	2.0724	2744.7	135.9	1.00	52.76	0.1255	166.2122	0.022161	3.3068	0.004379	63.31793	7.914741
	03	163	0	1536.6	0.4710	723.7	2.0698	3180.5	157.7	1.00	61.22	0.1255	192.8433	0.025712	3.3068	0.005081	73.46295	9.182869
	04	164	0	1547.7	0.4790	741.3	2.0445	3164.2	158.8	1.00	61.66	0.1255	194.2364	0.025898	3.3068	0.005118	73.99363	9.249203
	05	164	0	1555.2	0.4710	732.5	1.9934	3100.2	159.6	1.00	61.96	0.1255	195.1776	0.026023	3.3068	0.005143	74.35219	9.294024
	06	164	0	1547.6	0.4650	719.6	2.0037	3110.2	158.8	1.00	61.66	0.1255	194.2238	0.025896	3.3068	0.005118	73.98884	9.248606
	07	167	0	1628.2	0.4760	775.0	2.0064	3266.8	167.0	1.00	64.87	0.1255	204.3391	0.027245	3.3068	0.005384	77.84223	9.730279
	08	170	0	1676.5	0.4640	777.9	1.9826	3323.9	172.0	1.00	66.79	0.1255	210.4008	0.028053	3.3068	0.005544	80.15139	10.018992
	09	170	0	1649.9	0.4690	773.8	1.9919	3286.4	169.3	1.00	65.73	0.1255	207.0625	0.027608	3.3068	0.005456	78.87968	9.85996
	10	170	0	1667.1	0.4610	768.5	1.9867	3312.0	171.0	1.00	66.42	0.1255	209.2211	0.027896	3.3068	0.005513	79.70199	9.962749
	11	170	0	1655.7	0.4700	778.2	2.0050	3319.6	169.9	1.00	65.96	0.1255	207.7904	0.027705	3.3068	0.005475	79.15697	9.894622
	12	170	0	1664.1	0.4610	767.2	1.9757	3287.7	170.7	1.00	66.30	0.1255	208.8446	0.027845	3.3068	0.005503	79.55857	9.948821
	13	170	0	1665.3	0.4520	752.7	1.9661	3274.1	170.9	1.00	66.35	0.1255	208.9952	0.027866	3.3068	0.005507	79.61594	9.951992
	14	170	0	1650.7	0.4550	751.1	1.9933	3290.4	169.4	1.00	65.76	0.1255	207.1629	0.027621	3.3068	0.005458	78.91793	9.864741
	15	162	0	1587.7	0.4370	693.8	2.0026	3179.5	162.9	1.00	63.25	0.1255	199.2564	0.026567	3.3068	0.00525	75.90598	9.488247
	16	166	0	1628.4	0.4450	724.6	2.0122	3276.7	167.1	1.00	64.88	0.1255	204.3642	0.027248	3.3068	0.005385	77.85179	9.731474
	17	170	0	1662.0	0.4550	756.2	2.0199	3357.1	170.5	1.00	66.22	0.1255	208.581	0.02781	3.3068	0.005496	79.45817	9.932271
	18	170	0	1668.7	0.4680	781.0	2.0207	3371.9	171.2	1.00	66.48	0.1255	209.4219	0.027922	3.3068	0.005518	79.77849	9.972311
	19	171	0	1662.5	0.4800	798.0	2.0369	3386.4	170.6	1.00	66.24	0.1255	208.6438	0.027819	3.3068	0.005498	79.48207	9.935259
	20	171	0	1656.5	0.4710	780.2	2.0453	3388.1	170.0	1.00	66.00	0.1255	207.8908	0.027718	3.3068	0.005478	79.19522	9.899402
	21	171	0	1659.0	0.4670	774.8	2.0495	3400.1	170.2	1.00	66.10	0.1255	208.2045	0.02776	3.3068	0.005486	79.31474	9.914343
	22	171	0	1680.8	0.4410	741.2	2.0312	3414.0	172.5	1.00	66.96	0.1255	210.9404	0.028125	3.3068	0.005558	80.35697	10.04462
	23	171	0	1668.0	0.4520	753.9	2.0458	3412.4	171.1	1.00	66.45	0.1255	209.334	0.027911	3.3068	0.005516	79.74502	9.968127
02-16-2015	00	126	0	1241.0	0.4760	590.7	2.0091	2493.3	127.3	1.00	49.44	0.1255	155.7455	0.020766	3.3068	0.004104	59.33068	7.416335
01	98	0	986.3	0.4300	424.1	1.9877	1960.5	101.2	1.00	39.29	0.1255	123.7807	0.016504	3.3068	0.003261	47.15378	5.894223	
02	138	0	1409.7	0.4110	579.4	2.0218	2850.1	144.5	1.00	56.16	0.1255	176.9174	0.023589	3.3068	0.004662	67.39602	8.424502	
03	171	0	1705.1	0.4510	769.0	2.0388	3476.4	174.9	1.00	67.93	0.1255	213.9901	0.028532	3.3068	0.005638	81.51873	10.18984	
04	170	0	1675.1	0.4620	773.9	2.0530	3439.0	171.9	1.00	66.74	0.1255	210.2251	0.02803	3.3068	0.005539	80.08446	10.01056	
05	157	0	1562.2	0.4390	685.8	2.0319	3174.2	160.3	1.00	62.24	0.1255	196.0561	0.02614	3.3068	0.005166	74.68685	9.335857	
06	165	0	1637.8	0.4470	732.1	2.0480	3354.2	168.0	1.00	65.25	0.1255	205.5439	0.027405	3.3068	0.005539	80.08446	10.01056	
07	170	0	1684.2	0.4520	761.3	2.0395	3434.9	172.8	1.00	67.10	0.1255	211.3671	0.028182	3.3068	0.005569	80.51952	10.06494	
08	167	0	1650.6	0.4500	742.8	2.0493	3382.6	169.4	1.00	65.76	0.1255	207.1503	0.02762	3.3068	0.005458	78.91315	9.864143	
09	170	0	1673.0	0.4430	741.1	2.0550	3438.0	171.6	1.00	66.65	0.1255	209.9615	0.027994	3.3068	0.005532	79.98406	9.998008	
10	170	0	1666.5	0.4450	741.6	2.0421	3403.4	171.0	1.00	66.40	0.1255	209.1583	0.027887	3.3068	0.005511	79.67809	9.959761	
11	170	0	1673.8	0.4360	729.8	2.0365	3408.7	171.7	1.00	66.69	0.1255	210.0619	0.028008	3.3068	0.005535	80.02231	10.00279	
12	170	0	1673.8	0.4450	744.8	2.0418	3417.5	171.7	1.00	66.69	0.1255	210.0619	0.028008	3.3068	0.005535	80.02231	10.00279	
13	170	0	1659.5	0.4500	746.8	2.0670	3430.2	170.3	1.00	66.12	0.1255	208.2673	0.027769	3.3068	0.005488	79.33865	9.917331	
14	170	0	1657.5	0.4490	744.2	2.0650	3422.8	170.1	1.00	66.04	0.1255	208.0163	0.027735	3.3068	0.005481	79.24303	9.905378	
15	170	0	1654.4	0.4480	741.2	2.0740	3431.2	169.7	1.00	65.91	0.1255	207.6272	0.027683	3.3068	0.005471	79.09482	9.886853	
16	170	0	1665.0	0.4510	750.9	2.0689	3444.8	170.8	1.00	66.33	0.1255	208.0288	0.027737	3.3068	0.005506	79.60159	9.950199	
17	169	0	1657.6	0.4520	749.2	2.0763	3441.6	170.1	1.00	66.04	0.1255	208.0288	0.027737	3.3068	0.005481	79.24781	9.905976	
18	170	0	1663.3	0.4540	755.1	2.0667	3437.5	170.7	1.00	66.27	0.1255	208.7442	0.027832	3.3068	0.0055	79.52032	9.94004	
19	170	0	1659.4	0.4530	751.7	2.0733	3440.5	170.3	1.00	66.11	0.1255	208.2547	0.027767	3.3068	0.005487	79.33386	9.916733	
20	170	0	1658.8	0.4540	753.1	2.0699	3433.6	170.2	1.00	66.09	0.1255	208.1794	0.027757	3.3068	0.005485	79.30518	9.913147	
21	170	0	1658.2	0.4540	752.8	2.0637	3422.0	170.1	1.00	66.06	0.1255	208.1041	0.027747	3.3068	0.005483	79.27649	9.909562	
22	170	0	1660.6	0.4550	755.6	2.0626	3425.2	170.4	1.00	66.16	0.1255	208.4053	0.027787	3.3068	0.005491	79.39124	9.923904	
23	170	0	1655.5	0.4560	754.9	2.0634	3415.9	169.9	1.00	65.96	0.1255	207.7653	0.027702	3.3068	0.005474	79.14741	9.893426	



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/Hr)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
	02-17-2015 00	130	0	1282.2	0.4800	615.5	2.0399	2615.6	131.6	1.00	51.08	0.1255	160.9161	0.021455	3.3068	0.00424	61.3004	7.66255
	02-17-2015 01	106	0	1067.3	0.4660	497.4	2.0541	2192.3	109.5	1.00	42.52	0.1255	133.9462	0.017859	3.3068	0.003529	51.02629	6.378287
	02-17-2015 02	141	0	1436.9	0.4000	574.8	2.0756	2982.4	147.4	1.00	57.25	0.1255	180.331	0.024044	3.3068	0.004752	68.69641	8.587052
	02-17-2015 03	170	0	1676.7	0.4490	752.8	2.0545	3444.8	172.0	1.00	66.80	0.1255	210.4259	0.028056	3.3068	0.005544	80.16096	10.02012
	02-17-2015 04	170	0	1662.7	0.4480	744.9	2.0618	3428.1	170.6	1.00	66.24	0.1255	208.6689	0.027822	3.3068	0.005498	79.49163	9.936454
	02-17-2015 05	170	0	1650.2	0.4540	749.2	2.0398	3366.0	169.3	1.00	65.75	0.1255	207.1001	0.027613	3.3068	0.005457	78.89402	9.861753
	02-17-2015 06	170	0	1658.7	0.4660	773.0	2.0438	3390.0	170.2	1.00	66.08	0.1255	208.1669	0.027755	3.3068	0.005485	79.3004	9.91255
	02-17-2015 07	170	0	1655.4	0.4620	764.8	2.0491	3392.0	169.8	1.00	65.95	0.1255	207.7527	0.0277	3.3068	0.005474	79.14263	9.892829
	02-17-2015 08	170	0	1674.6	0.4600	770.3	2.0394	3415.2	171.8	1.00	66.72	0.1255	210.1623	0.028021	3.3068	0.005538	80.06056	10.00757
	02-17-2015 09	170	0	1650.5	0.4640	765.8	2.0454	3377.6	169.3	1.00	65.76	0.1255	207.1378	0.027618	3.3068	0.005458	78.90837	9.863546
	02-17-2015 10	170	0	1650.1	0.4630	764.0	2.0355	3358.8	169.3	1.00	65.74	0.1255	207.0876	0.027611	3.3068	0.005457	78.88924	9.861155
	02-17-2015 11	169	0	1658.8	0.4540	753.1	2.0148	3342.2	170.2	1.00	66.09	0.1255	208.1794	0.027757	3.3068	0.005485	79.30518	9.913147
	02-17-2015 12	170	0	1673.9	0.4660	780.0	2.0105	3365.4	171.7	1.00	66.69	0.1255	210.0745	0.028009	3.3068	0.005535	80.02709	10.00339
	02-17-2015 13	170	0	1673.0	0.4800	803.0	1.9939	3344.2	171.7	1.00	66.65	0.1255	209.9615	0.027994	3.3068	0.005532	79.98406	9.98008
	02-17-2015 14	170	0	1666.4	0.4670	778.2	1.9906	3317.2	171.0	1.00	66.39	0.1255	209.1332	0.027884	3.3068	0.00551	79.66853	9.958566
	02-17-2015 15	170	0	1661.8	0.4740	787.7	2.0006	3324.6	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005504	79.57769	9.947211
	02-17-2015 16	170	0	1664.5	0.4740	789.0	1.9976	3325.0	170.8	1.00	66.31	0.1255	208.8948	0.027852	3.3068	0.005501	79.53944	9.94243
	02-17-2015 17	170	0	1663.7	0.4670	776.9	2.0033	3332.9	170.7	1.00	66.28	0.1255	208.7944	0.027839	3.3068	0.005519	79.79283	9.974104
	02-17-2015 18	170	0	1669.0	0.4640	774.4	2.0049	3346.2	171.2	1.00	66.49	0.1255	209.4595	0.027927	3.3068	0.00552	79.80239	9.975299
	02-17-2015 19	170	0	1669.2	0.4640	774.5	2.0168	3366.5	171.3	1.00	66.50	0.1255	209.4846	0.027931	3.3068	0.005527	79.80239	9.975299
	02-17-2015 20	170	0	1672.7	0.4650	777.8	2.0238	3385.2	171.6	1.00	66.64	0.1255	209.9239	0.027989	3.3068	0.005531	79.96972	9.996215
	02-17-2015 21	170	0	1671.4	0.4630	775.9	2.0382	3406.6	171.5	1.00	66.59	0.1255	209.7607	0.027968	3.3068	0.005527	79.90757	9.988446
02-17-2015 22	167	0	1631.8	0.4670	762.1	2.0634	3367.1	167.4	1.00	65.01	0.1255	204.7909	0.027305	3.3068	0.005396	78.01434	9.751793	
02-18-2015 00	129	0	1525.9	0.4430	676.0	2.0352	3105.5	156.6	1.00	60.79	0.1255	191.5005	0.025533	3.3068	0.005046	72.95139	9.118924	
02-18-2015 01	115	0	1091.4	0.4110	448.6	1.9613	2140.6	112.0	1.00	49.05	0.1255	154.5031	0.0206	3.3068	0.004071	58.85737	7.357171	
02-18-2015 02	115	0	1088.1	0.4020	437.4	1.9592	2164.4	111.6	1.00	43.48	0.1255	136.9707	0.018262	3.3068	0.003609	52.17849	6.522311	
02-18-2015 03	134	0	1260.4	0.3860	486.5	2.0194	2545.3	129.3	1.00	50.22	0.1255	158.1802	0.021103	3.3068	0.004168	60.25817	7.532271	
02-18-2015 04	165	0	1619.7	0.3990	646.3	1.9396	3141.5	166.2	1.00	64.53	0.1255	203.2724	0.027103	3.3068	0.005356	77.43586	9.679482	
02-18-2015 05	170	0	1678.8	0.4280	718.5	1.9023	3193.6	172.2	1.00	66.88	0.1255	210.6894	0.028091	3.3068	0.005551	80.26135	10.03267	
02-18-2015 06	170	0	1694.7	0.4270	723.6	1.9238	3260.3	173.9	1.00	67.52	0.1255	212.6849	0.028358	3.3068	0.005604	81.02151	10.12769	
02-18-2015 07	171	0	1682.0	0.4380	736.7	1.9508	3281.3	172.6	1.00	67.01	0.1255	211.091	0.028145	3.3068	0.005562	80.41434	10.05179	
02-18-2015 08	171	0	1672.0	0.4380	732.3	1.9572	3272.4	171.6	1.00	66.61	0.1255	209.836	0.027978	3.3068	0.005529	79.93625	9.992032	
02-18-2015 09	152	0	1568.5	0.4190	657.2	1.9259	3020.8	160.9	1.00	62.49	0.1255	196.8468	0.026246	3.3068	0.005187	74.98805	9.373506	
02-18-2015 10	149	0	1564.2	0.4140	647.6	1.9114	2989.8	160.5	1.00	62.32	0.1255	196.3071	0.026174	3.3068	0.005172	74.78247	9.347805	
02-18-2015 11	156	0	1620.6	0.4200	680.7	1.9220	3114.8	166.3	1.00	64.57	0.1255	203.3853	0.027118	3.3068	0.005359	77.47888	9.684861	
02-18-2015 12	151	0	1564.9	0.4200	657.3	1.9049	2981.0	160.6	1.00	62.35	0.1255	196.395	0.026186	3.3068	0.005175	74.81594	9.351999	
02-18-2015 13	85	0	1042.6	0.3320	346.1	1.7641	1839.3	107.0	1.00	41.54	0.1255	130.8463	0.017446	3.3068	0.003448	49.84542	6.230677	
02-18-2015 14	19	0	431.4	0.1231	53.1	1.2478	538.3	44.3	1.00	17.19	0.1255	54.1407	0.007219	3.3068	0.001427	20.6247	2.578088	
02-18-2015 15	0	0	145.4	0.0213	3.1	0.1045	15.2	14.9	1.00	5.79	0.1255	18.2477	0.002433	3.3068	0.000481	6.951394	0.868924	
02-18-2015 16	1	1	142.1	0.0197	2.8	0.0999	14.2	14.6	1.00	5.66	0.1255	17.8355	0.002378	3.3068	0.00047	6.793625	0.849203	
02-18-2015 17	0	0	141.2	0.0198	2.8	0.0949	13.4	14.5	1.00	5.63	0.1255	17.7206	0.002363	3.3068	0.000467	6.750598	0.843825	
02-18-2015 18	0	0	140.8	0.0199	2.8	0.0895	12.6	14.4	1.00	5.61	0.1255	17.6704	0.002356	3.3068	0.000466	6.734474	0.841434	
02-18-2015 19	0	0	117.3	0.0196	2.3	0.1074	12.6	12.0	1.00	4.67	0.1255	14.72115	0.001963	3.3068	0.000388	5.607996	0.700996	
02-18-2015 20	0	0	140.7	0.0192	2.7	0.0896	12.6	14.4	1.00	5.61	0.1255	17.65785	0.002354	3.3068	0.000465	6.726693	0.840837	
02-18-2015 21	0	0	140.9	0.0192	2.7	0.0894	12.6	14.5	1.00	5.61	0.1255	17.68295	0.002358	3.3068	0.000466	6.736255	0.842032	
02-18-2015 22	0	0	53.3	0.0193	1.0	0.0399	4.8	5.5	0.38	2.12	0.1255	6.686138	0.000891	3.3068	0.000176	2.54706	0.318382	



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substituted Date	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal (tons/hr)	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/Btu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	02-18-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-19-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Unit	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/mmBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/mmBtu)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
	02-20-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-20-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-21-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02-22-2015 00	0	0	62.6	0.0160	0.0	0.0000	0.0	0.0	0.30	0.01	0.1255	0.03765	5.02E-06	3.3068	9.92E-07	0.014343	0.001793
	02-22-2015 01	0	0	88.2	0.0317	2.8	0.0000	0.0	6.4	1.00	2.49	0.1255	7.8563	0.001047	3.3068	0.000207	2.992829	0.374104
	02-22-2015 02	0	0	100.7	0.0417	4.2	0.0000	0.0	9.1	1.00	3.51	0.1255	11.0691	0.001476	3.3068	0.000292	4.216733	0.527092
	02-22-2015 03	0	0	92.7	0.0410	3.8	0.0000	0.0	10.3	1.00	4.01	0.1255	12.63785	0.001685	3.3068	0.000333	4.814343	0.601793
	02-22-2015 04	0	0	96.9	0.0392	3.8	0.0000	0.0	9.5	1.00	3.69	0.1255	11.63385	0.001551	3.3068	0.000307	4.431873	0.553984
	02-22-2015 05	0	0	94.2	0.0403	3.8	0.0000	0.0	9.9	1.00	3.86	0.1255	12.16095	0.001621	3.3068	0.00032	4.632669	0.579084
	02-22-2015 06	0	0	93.0	0.0409	3.8	0.0000	0.0	9.7	1.00	3.75	0.1255	11.8221	0.001576	3.3068	0.000311	4.503586	0.562948
	02-22-2015 07	0	0	92.2	0.0401	3.7	0.0000	0.0	9.5	1.00	3.71	0.1255	11.6715	0.001556	3.3068	0.000308	4.446215	0.555777
	02-22-2015 08	0	0	92.5	0.0389	3.6	0.0000	0.0	9.5	1.00	3.67	0.1255	11.5711	0.001543	3.3068	0.000305	4.407968	0.550996
	02-22-2015 09	0	0	92.4	0.0390	3.6	0.0000	0.0	9.5	1.00	3.68	0.1255	11.5962	0.001546	3.3068	0.000306	4.423311	0.552789
	02-22-2015 10	0	0	128.3	0.0811	10.4	0.2362	30.3	13.2	1.00	5.11	0.1255	16.10165	0.002147	3.3068	0.000424	6.133865	0.766733
	02-22-2015 11	62	0	652.8	0.3090	204.7	1.6451	1073.9	67.0	1.00	26.01	0.1255	131.8629	0.010923	3.3068	0.002159	31.20956	3.901195
	02-22-2015 12	100	0	1031.9	0.3230	333.3	2.0369	2101.9	105.9	1.00	41.11	0.1255	129.5035	0.017267	3.3068	0.003412	49.33386	6.166733
	02-22-2015 13	105	0	1050.7	0.4050	425.5	2.0657	2170.4	107.8	1.00	41.86	0.1255	131.8629	0.017581	3.3068	0.003474	50.23267	6.279084
	02-22-2015 14	102	0	1017.6	0.3680	374.5	2.0545	2090.7	104.4	1.00	40.54	0.1255	127.7088	0.017028	3.3068	0.003365	48.6502	6.081275
	02-22-2015 15	137	0	1368.9	0.3970	543.5	2.0855	2854.8	140.5	1.00	54.54	0.1255	171.797	0.022906	3.3068	0.004527	65.44542	8.180677
	02-22-2015 16	155	0	1528.5	0.4570	698.5	2.0610	3150.3	156.3	1.00	60.90	0.1255	191.8268	0.025576	3.3068	0.005054	73.0757	9.134462
	02-22-2015 17	170	0	1624.9	0.4740	770.2	2.0979	3408.8	166.7	1.00	64.74	0.1255	203.925	0.02719	3.3068	0.005373	77.68446	9.710558
	02-22-2015 18	170	0	1628.2	0.4760	775.0	2.1109	3436.9	167.0	1.00	64.87	0.1255	204.3391	0.027245	3.3068	0.005384	77.84223	9.730279
	02-22-2015 19	170	0	1628.8	0.4780	778.6	2.1299	3469.1	167.1	1.00	64.89	0.1255	204.4144	0.027255	3.3068	0.005386	77.87092	9.733865
	02-22-2015 20	170	0	1628.8	0.4780	778.6	2.1299	3469.1	167.1	1.00	64.89	0.1255	204.4144	0.027255	3.3068	0.005386	77.87092	9.733865



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

**January 1, 2015 through November 26, 2017**

SP555131232 Date	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> (Lb/mmBtu)	Common Stack SO <sub>2</sub> (Lb/hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal trans/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/Btu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	02-22-2015 21	166	0	1593.9	0.4750	757.1	2.1146	3370.4	163.5	1.00	63.50	0.1255	200.0345	3.3068	0.005271	76.20239	9.525299
	02-22-2015 22	146	0	1405.7	0.4800	674.7	2.0992	2950.8	144.2	1.00	56.00	0.1255	176.4154	3.3068	0.004648	67.20478	8.400598
	02-22-2015 23	125	0	1227.9	0.4780	586.9	2.0971	2575.0	126.0	1.00	48.92	0.1255	154.1015	3.3068	0.00406	58.70438	7.338048
	02-23-2015 00	123	0	1211.9	0.4910	595.0	2.1153	2563.5	124.3	1.00	48.28	0.1255	152.0935	3.3068	0.004007	57.93944	7.24243
	02-23-2015 01	112	0	1098.3	0.4670	512.9	2.1183	2326.5	112.7	1.00	43.76	0.1255	137.8367	3.3068	0.003632	52.50837	6.563546
	02-23-2015 02	98	0	960.6	0.4510	433.2	2.1108	2027.6	98.6	1.00	38.27	0.1255	120.5553	3.3068	0.003176	45.9251	5.740637
	02-23-2015 03	98	0	961.3	0.4280	411.4	2.1287	2046.3	98.6	1.00	38.30	0.1255	120.6432	3.3068	0.003179	45.95857	5.744821
	02-23-2015 04	112	0	1092.0	0.4090	446.6	2.1368	2333.4	112.0	1.00	43.51	0.1255	137.046	3.3068	0.004296	62.11315	7.764143
	02-23-2015 05	131	0	1299.2	0.4570	593.7	2.1339	2772.4	133.3	1.00	51.76	0.1255	163.0496	3.3068	0.004296	62.11315	7.764143
	02-23-2015 06	156	0	1506.2	0.4600	671.8	2.1510	3239.8	154.5	1.00	60.01	0.1255	189.0281	3.3068	0.004981	72.00956	9.001195
	02-23-2015 07	156	0	1513.0	0.4660	705.1	2.1443	3244.4	155.2	1.00	60.28	0.1255	189.8815	3.3068	0.005003	72.33466	9.041833
	02-23-2015 08	163	0	1547.2	0.4740	733.4	2.1750	3365.2	158.1	1.00	61.64	0.1255	194.1736	3.3068	0.005116	73.96972	9.246215
	02-23-2015 09	163	0	1541.3	0.4810	741.4	2.1691	3343.2	158.1	1.00	61.41	0.1255	193.4332	3.3068	0.005097	73.88765	9.210956
	02-23-2015 10	153	0	1467.5	0.4870	714.7	2.1700	3184.5	150.5	1.00	58.47	0.1255	184.1713	3.3068	0.004853	70.15936	8.76992
	02-23-2015 11	161	0	1532.4	0.4810	737.1	2.1805	3341.4	157.2	1.00	61.05	0.1255	192.3162	3.3068	0.005067	73.26215	9.157769
	02-23-2015 12	163	0	1552.6	0.4790	743.7	2.1631	3358.4	159.3	1.00	61.86	0.1255	195.4513	3.3068	0.005134	74.22789	9.278486
	02-23-2015 13	163	0	1559.4	0.4820	751.6	2.1441	3343.5	160.0	1.00	62.13	0.1255	195.7047	3.3068	0.005157	74.55299	9.319124
	02-23-2015 14	160	0	1531.2	0.4790	733.4	2.1337	3267.1	157.1	1.00	61.00	0.1255	192.1656	3.3068	0.005063	73.20478	9.150598
	02-23-2015 15	157	0	1518.9	0.4760	723.0	2.1022	3193.1	155.8	1.00	60.51	0.1255	190.622	3.3068	0.005023	72.61673	9.077092
	02-23-2015 16	162	0	1543.7	0.4640	716.3	2.0960	3235.6	158.4	1.00	61.50	0.1255	193.7944	3.3068	0.005105	73.80239	9.225299
	02-23-2015 17	163	0	1557.3	0.4660	725.7	2.0938	3260.7	159.8	1.00	62.04	0.1255	195.4412	3.3068	0.00515	74.45259	9.306574
	02-23-2015 18	164	0	1559.9	0.4630	747.2	2.1084	3394.6	165.6	1.00	64.30	0.1255	202.5445	3.3068	0.005337	77.15857	9.644821
	02-23-2015 19	167	0	1613.9	0.4630	747.2	2.1084	3394.6	165.6	1.00	64.30	0.1255	202.5445	3.3068	0.005337	77.15857	9.644821
	02-23-2015 20	164	0	1553.5	0.4400	683.5	2.1160	3287.2	159.4	1.00	61.89	0.1255	194.9643	3.3068	0.005137	74.27092	9.283865
	02-23-2015 21	163	0	1554.3	0.4340	674.6	2.0990	3262.5	159.5	1.00	61.92	0.1255	195.0647	3.3068	0.00514	74.30916	9.288645
	02-23-2015 22	164	0	1562.8	0.4310	673.6	2.1023	3285.4	160.3	1.00	62.26	0.1255	196.1314	3.3068	0.005168	74.71554	9.339442
	02-23-2015 23	167	0	1594.9	0.4370	697.0	2.0822	3320.9	163.6	1.00	63.54	0.1255	200.16	3.3068	0.005274	76.2502	9.531275
	02-24-2015 00	167	0	1593.2	0.4410	702.5	2.0869	3324.8	163.5	1.00	63.47	0.1255	199.9466	3.3068	0.005268	76.16892	9.521116
	02-24-2015 01	167	0	1590.5	0.4370	695.0	2.0974	3335.9	163.2	1.00	63.37	0.1255	199.6078	3.3068	0.005259	76.03984	9.50498
	02-24-2015 02	167	0	1592.1	0.4400	700.5	2.1029	3348.0	163.3	1.00	63.43	0.1255	199.8086	3.3068	0.005265	76.11633	9.514542
	02-24-2015 03	167	0	1593.8	0.4450	709.2	2.0978	3343.5	163.5	1.00	63.50	0.1255	200.0219	3.3068	0.00527	76.19761	9.524701
	02-24-2015 04	167	0	1598.4	0.4460	712.9	2.1094	3371.7	164.0	1.00	63.68	0.1255	200.5992	3.3068	0.005286	76.41753	9.552191
	02-24-2015 05	169	0	1625.1	0.4520	734.5	2.0923	3400.2	166.7	1.00	64.75	0.1255	203.9501	3.3068	0.005374	77.69402	9.711753
	02-24-2015 06	169	0	1632.3	0.4590	749.2	2.1084	3441.5	167.5	1.00	65.03	0.1255	204.8537	3.3068	0.005398	78.03825	9.754781
	02-24-2015 07	166	0	1600.6	0.4520	723.5	2.1084	3374.7	164.2	1.00	63.77	0.1255	200.8753	3.3068	0.005293	76.52271	9.565339
	02-24-2015 08	169	0	1645.5	0.4670	768.4	2.1065	3466.2	168.8	1.00	65.56	0.1255	206.5103	3.3068	0.005441	78.66932	9.833665
	02-24-2015 09	170	0	1643.4	0.4730	777.3	2.1186	3481.7	168.6	1.00	65.47	0.1255	206.2467	3.3068	0.005434	78.56892	9.821116
	02-24-2015 10	165	0	1592.4	0.4450	708.6	2.1285	3389.4	163.4	1.00	63.44	0.1255	199.8462	3.3068	0.005266	76.13068	9.516335
	02-24-2015 11	167	0	1589.4	0.4380	696.2	2.1426	3405.5	163.1	1.00	63.32	0.1255	199.4697	3.3068	0.005256	75.98725	9.498406
	02-24-2015 12	169	0	1617.0	0.4370	708.4	2.1399	3468.8	166.3	1.00	64.58	0.1255	203.4355	3.3068	0.00536	77.49801	9.687251
	02-24-2015 13	170	0	1617.0	0.4400	711.5	2.1407	3461.5	165.9	1.00	64.42	0.1255	202.9335	3.3068	0.005376	77.73227	9.716534
	02-24-2015 14	169	0	1625.9	0.4360	708.9	2.1503	3496.1	166.8	1.00	64.78	0.1255	204.0505	3.3068	0.005364	77.5506	9.693825
	02-24-2015 15	169	0	1622.1	0.4390	712.1	2.1397	3470.8	166.4	1.00	64.63	0.1255	203.5736	3.3068	0.005364	77.5506	9.693825
	02-24-2015 16	170	0	1642.5	0.4480	735.8	2.1663	3558.1	168.5	1.00	65.44	0.1255	206.1338	3.3068	0.005431	78.5259	9.815737
	02-24-2015 17	169	0	1648.5	0.4520	745.1	2.1581	3557.6	169.1	1.00	65.68	0.1255	206.8868	3.3068	0.005451	78.81275	9.851594
	02-24-2015 18	171	0	1654.1	0.4380	724.5	2.1648	3580.8	169.7	1.00	65.90	0.1255	207.5896	3.3068	0.00547	79.08048	9.88506
	02-24-2015 19	170	0	1656.9	0.4600	762.2	2.1734	3601.1	170.0	1.00	66.01	0.1255	207.941	3.3068	0.005479	79.21494	9.901793



Ominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Data	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> (Lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (in/minutes)	Coal tons/hr	PM-10 (µm/mBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
Substation Data	02-24-2015 20	170	0	1648.8	0.4610	760.1	2.1787	3592.3	169.2	1.00	65.69	0.1255	206.9244	0.027589	3.3068	0.005452	78.82709	9.853386
	02-24-2015 21	169	0	1663.7	0.4520	752.0	2.1681	3607.0	170.7	1.00	66.28	0.1255	208.7944	0.027839	3.3068	0.005501	79.53944	9.94243
	02-24-2015 22	170	0	1632.1	0.4580	747.5	2.1667	3536.3	167.5	1.00	65.02	0.1255	204.8286	0.02731	3.3068	0.005397	78.02869	9.753586
	02-24-2015 23	168	0	1613.8	0.4500	726.2	2.1206	3422.3	165.6	1.00	64.29	0.1255	202.5319	0.027004	3.3068	0.005336	77.15378	9.644223
	02-25-2015 00	116	0	1106.4	0.5060	559.8	2.0502	2268.3	113.5	1.00	44.08	0.1255	138.8532	0.018513	3.3068	0.003659	52.89562	6.611952
	02-25-2015 01	114	0	1075.6	0.4660	501.2	2.0502	2205.2	110.4	1.00	42.85	0.1255	134.9878	0.017998	3.3068	0.003557	51.42311	6.427888
	02-25-2015 02	146	0	1384.8	0.4310	596.8	2.0333	2815.7	142.1	1.00	55.17	0.1255	173.7924	0.023172	3.3068	0.004579	66.20558	8.275697
	02-25-2015 03	170	0	1598.4	0.4540	725.7	2.0162	3222.7	164.0	1.00	63.68	0.1255	200.9992	0.026746	3.3068	0.005286	76.41753	9.552191
	02-25-2015 04	170	0	1591.6	0.4520	719.4	2.0172	3210.5	163.3	1.00	63.41	0.1255	199.7458	0.026632	3.3068	0.005263	76.09243	9.511554
	02-25-2015 05	168	0	1661.8	0.4220	701.3	1.9135	3188.1	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005495	79.44861	9.931076
	02-25-2015 06	169	0	1664.7	0.4320	719.2	1.9334	3218.5	170.8	1.00	66.32	0.1255	208.9199	0.027856	3.3068	0.005505	79.58725	9.948406
	02-25-2015 07	169	0	1661.8	0.4330	719.6	1.9356	3216.5	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005495	79.44861	9.931076
	02-25-2015 08	170	0	1619.8	0.4390	711.1	1.9939	3229.8	166.2	1.00	64.53	0.1255	203.2849	0.027104	3.3068	0.005356	77.44064	9.68008
	02-25-2015 09	170	0	1654.4	0.4300	711.4	1.9313	3195.1	169.7	1.00	65.91	0.1255	207.6272	0.027683	3.3068	0.005471	79.09482	9.886853
	02-25-2015 10	169	0	1630.6	0.4200	684.9	1.9252	3139.2	167.3	1.00	64.96	0.1255	204.6403	0.027285	3.3068	0.005392	77.95697	9.744622
	02-25-2015 11	171	0	1639.5	0.4260	698.4	1.9038	3129.5	168.2	1.00	65.32	0.1255	205.7573	0.027434	3.3068	0.005421	78.38247	9.797809
	02-25-2015 12	170	0	1651.8	0.4210	695.4	1.8961	3132.0	169.5	1.00	65.81	0.1255	206.6232	0.027549	3.3068	0.005444	78.71235	9.839044
	02-25-2015 13	171	0	1646.4	0.4190	689.8	1.8904	3112.3	168.9	1.00	65.59	0.1255	204.6027	0.02728	3.3068	0.005391	77.94263	9.742829
02-25-2015 14	169	0	1630.3	0.4180	681.5	1.8843	3071.9	167.3	1.00	59.94	0.1255	188.8022	0.025173	3.3068	0.004975	71.92351	8.990438	
02-25-2015 15	155	0	1504.4	0.4200	631.8	1.8788	2826.5	154.4	1.00	62.71	0.1255	197.5245	0.026336	3.3068	0.005205	75.24622	9.405777	
02-25-2015 16	160	0	1573.9	0.4060	639.0	1.8517	2914.4	161.5	1.00	63.99	0.1255	201.5556	0.026875	3.3068	0.005311	76.78566	9.598207	
02-25-2015 17	165	0	1606.1	0.4060	652.1	1.8317	3038.2	164.8	1.00	63.78	0.1255	200.9004	0.026786	3.3068	0.005293	76.53227	9.565534	
02-25-2015 18	165	0	1600.8	0.4240	678.7	1.8936	3031.2	164.2	1.00	63.99	0.1255	200.9004	0.026786	3.3068	0.005293	76.53227	9.565534	
02-25-2015 19	166	6	1715.6	0.4300	737.7	1.9003	3260.1	176.0	1.00	68.35	0.1255	215.3078	0.028707	3.3068	0.005673	82.02072	10.25259	
02-25-2015 20	169	28	1944.4	0.4840	941.1	1.9631	3817.1	199.5	1.00	77.47	0.1255	244.0222	0.032536	3.3068	0.00643	92.95936	11.61992	
02-25-2015 21	171	77	2328.4	0.4130	961.6	2.0263	4718.1	238.9	1.00	92.76	0.1255	292.2142	0.038961	3.3068	0.007699	111.3179	13.91474	
02-25-2015 22	171	84	2426.3	0.4760	1154.9	2.1013	5098.5	248.9	1.00	96.67	0.1255	304.5007	0.040599	3.3068	0.008023	115.9984	14.4998	
02-25-2015 23	171	86	2408.1	0.4670	1124.6	2.1366	5145.1	247.1	1.00	95.94	0.1255	302.2166	0.040295	3.3068	0.007963	115.1283	14.39104	
02-26-2015 00	127	86	1974.3	0.5360	1058.2	2.1184	4182.4	202.6	1.00	78.66	0.1255	247.7747	0.033036	3.3068	0.006529	94.38884	11.79861	
02-26-2015 01	98	86	1731.4	0.5650	978.2	2.0999	3635.8	177.6	1.00	68.98	0.1255	292.2142	0.038961	3.3068	0.007699	111.3179	13.91474	
02-26-2015 02	135	86	2074.7	0.5030	1043.6	2.1150	4388.0	212.9	1.00	82.66	0.1255	260.3749	0.034716	3.3068	0.006861	99.18884	12.39861	
02-26-2015 03	160	86	2272.2	0.4950	1124.7	2.1157	4807.4	233.1	1.00	90.53	0.1255	285.1611	0.038021	3.3068	0.007514	108.6311	13.57888	
02-26-2015 04	154	86	2222.5	0.5010	1113.5	2.1150	4700.5	228.0	1.00	88.55	0.1255	278.9238	0.037189	3.3068	0.007349	106.255	13.28187	
02-26-2015 05	151	86	2200.9	0.4910	1080.6	2.1049	4632.7	225.8	1.00	87.69	0.1255	276.213	0.036828	3.3068	0.007278	105.2223	13.15279	
02-26-2015 06	166	87	2337.2	0.4870	1138.2	2.1041	4917.8	239.8	1.00	93.12	0.1255	293.3186	0.039109	3.3068	0.007729	111.7386	13.96733	
02-26-2015 07	163	87	2303.2	0.4870	1121.7	2.0981	4832.3	236.3	1.00	91.76	0.1255	289.0516	0.0384	3.3068	0.007616	110.1131	13.76414	
02-26-2015 08	163	87	2301.2	0.4520	1040.1	2.1046	4843.2	236.1	1.00	90.53	0.1255	285.1611	0.038021	3.3068	0.007514	108.6311	13.57888	
02-26-2015 09	166	84	2333.9	0.4380	1022.2	2.0935	4886.0	239.5	1.00	88.55	0.1255	278.9238	0.037189	3.3068	0.007349	106.255	13.28187	
02-26-2015 10	169	82	2360.5	0.4420	1043.3	2.0960	4947.7	242.2	1.00	94.04	0.1255	296.2428	0.039498	3.3068	0.007806	112.8526	14.10657	
02-26-2015 11	171	86	2394.9	0.4690	1123.2	2.1094	5051.8	245.7	1.00	95.41	0.1255	300.56	0.040074	3.3068	0.007919	114.4972	14.31215	
02-26-2015 12	169	87	2362.3	0.4860	1148.1	2.1057	4974.4	242.4	1.00	94.12	0.1255	296.4687	0.039529	3.3068	0.007812	112.9386	14.17133	
02-26-2015 13	169	88	2360.4	0.4670	1102.3	2.0977	4951.4	242.2	1.00	94.04	0.1255	296.2302	0.039497	3.3068	0.007805	112.8478	14.10598	
02-26-2015 14	169	87	2373.9	0.4870	1156.1	2.0880	4956.8	243.6	1.00	94.58	0.1255	297.9245	0.039723	3.3068	0.00785	113.4932	14.18665	
02-26-2015 15	169	87	2342.8	0.5010	1173.7	2.0696	4848.6	240.4	1.00	93.34	0.1255	294.0214	0.039202	3.3068	0.007747	112.0064	14.0008	
02-26-2015 16	169	88	2350.7	0.4890	1149.5	2.0774	4883.4	241.2	1.00	93.65	0.1255	295.0129	0.039334	3.3068	0.007773	112.3841	14.04801	
02-26-2015 17	169	88	2346.8	0.5000	1173.4	2.0884	4901.0	240.8	1.00	93.50	0.1255	294.5734	0.039269	3.3068	0.00776	112.1976	14.0247	
02-26-2015 18	166	88	2333.6	0.5040	1176.1	2.0678	4825.4	239.4	1.00	92.37	0.1255	292.8668	0.039048	3.3068	0.007717	111.5665	13.94582	



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Substation ID	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
5055103-03	02-26-2015 19	166	88	2330.0	0.5020	2.0623	4805.2	239.1	1.00	92.83	0.1255	292.415	0.038988	3.3068	0.007705	111.3944	13.9243
	02-26-2015 20	167	88	2327.6	0.5020	2.0704	4819.1	238.8	1.00	92.73	0.1255	292.1138	0.038948	3.3068	0.007697	111.2797	13.90996
	02-26-2015 21	167	88	2331.5	0.5030	2.0797	4848.9	239.2	1.00	92.89	0.1255	292.6033	0.039013	3.3068	0.00771	111.4661	13.93327
	02-26-2015 22	166	88	2334.1	0.4970	2.0778	4849.9	239.5	1.00	92.99	0.1255	292.9296	0.039057	3.3068	0.007718	111.5904	13.9438
	02-26-2015 23	154	88	2207.0	0.5080	2.0867	4605.4	226.4	1.00	87.99	0.1255	276.9785	0.03693	3.3068	0.007298	105.5139	13.18924
	02-27-2015 00	147	88	2159.2	0.5160	2.0754	4481.1	221.5	1.00	86.02	0.1255	270.9796	0.03613	3.3068	0.00714	103.2287	12.90359
	02-27-2015 01	146	88	2141.1	0.5120	2.0819	4457.5	219.7	1.00	85.30	0.1255	268.7081	0.035827	3.3068	0.00708	102.3633	12.79542
	02-27-2015 02	162	88	2300.0	0.4970	2.0855	4796.6	236.0	1.00	91.63	0.1255	288.65	0.038486	3.3068	0.007606	109.9602	13.74502
	02-27-2015 03	166	88	2340.4	0.4970	2.0878	4886.2	240.1	1.00	93.24	0.1255	293.7202	0.039162	3.3068	0.007739	111.8916	13.98645
	02-27-2015 04	163	88	2294.8	0.5080	2.0890	4793.8	235.4	1.00	91.43	0.1255	287.9974	0.038399	3.3068	0.007588	109.7116	13.71394
	02-27-2015 05	165	87	2281.2	0.5120	2.0991	4926.8	240.8	1.00	90.88	0.1255	286.2906	0.038171	3.3068	0.007543	109.0614	13.63267
	02-27-2015 06	168	88	2347.1	0.5070	2.1046	4928.1	240.2	1.00	93.29	0.1255	293.8708	0.039182	3.3068	0.007761	112.212	14.02649
	02-27-2015 07	169	88	2343.0	0.5090	2.1001	4920.5	240.4	1.00	93.35	0.1255	294.0465	0.039206	3.3068	0.007748	112.0159	14.00199
	02-27-2015 08	168	88	2357.6	0.5010	2.0986	4947.7	241.9	1.00	93.93	0.1255	295.8788	0.03945	3.3068	0.007796	112.7139	14.08924
	02-27-2015 09	168	88	2328.9	0.5050	2.1228	4943.7	238.9	1.00	92.78	0.1255	292.277	0.03897	3.3068	0.007701	111.3418	13.91773
	02-27-2015 11	165	88	2300.5	0.5060	2.1263	4891.6	236.0	1.00	91.65	0.1255	288.7128	0.038494	3.3068	0.007607	109.9841	13.74801
	02-27-2015 12	155	88	2211.4	0.5150	2.1189	4685.7	226.9	1.00	88.10	0.1255	277.5307	0.037004	3.3068	0.007313	105.7243	13.21554
02-27-2015 13	161	88	2250.8	0.4960	2.1315	4797.5	230.9	1.00	89.67	0.1255	282.4754	0.037663	3.3068	0.007443	107.608	13.451	
02-27-2015 15	153	88	2200.3	0.4900	2.1163	4656.6	225.8	1.00	87.66	0.1255	275.2466	0.036699	3.3068	0.007252	104.8542	13.10677	
02-27-2015 16	155	88	2203.3	0.4980	2.1264	4685.1	226.1	1.00	87.78	0.1255	276.1377	0.036818	3.3068	0.007276	105.1936	13.1492	
02-27-2015 17	158	88	2253.0	0.4840	2.1179	4771.7	231.2	1.00	89.76	0.1255	282.7515	0.0377	3.3068	0.00745	107.7131	13.16713	
02-27-2015 18	166	88	2300.4	0.4620	2.1276	4894.3	236.0	1.00	91.65	0.1255	288.7002	0.038493	3.3068	0.007607	109.9793	13.74741	
02-27-2015 19	168	87	2319.9	0.4460	2.1281	4937.0	238.0	1.00	92.43	0.1255	291.1475	0.038819	3.3068	0.007671	110.9116	13.86394	
02-27-2015 20	169	87	2344.9	0.4560	2.1032	4931.8	240.6	1.00	93.42	0.1255	294.285	0.039237	3.3068	0.007754	112.1068	14.01335	
02-27-2015 21	169	88	2348.1	0.4930	2.0976	4925.3	240.9	1.00	93.55	0.1255	294.6866	0.039291	3.3068	0.007765	112.2598	14.03247	
02-27-2015 22	167	86	2331.5	0.4930	2.0985	4892.7	239.2	1.00	92.89	0.1255	292.6033	0.039013	3.3068	0.00771	111.4661	13.93327	
02-27-2015 23	169	86	2311.3	0.5030	2.1231	4907.1	237.1	1.00	92.08	0.1255	290.0682	0.038675	3.3068	0.007643	110.5004	13.81255	
02-28-2015 01	115	87	1872.7	0.5880	2.0916	3916.9	192.1	1.00	74.61	0.1255	235.0239	0.031336	3.3068	0.006193	89.53147	11.19143	
02-28-2015 02	99	88	1736.5	0.6070	2.0798	3611.5	178.2	1.00	69.18	0.1255	217.9308	0.029057	3.3068	0.005742	83.01992	10.37749	
02-28-2015 03	147	89	1892.6	0.5810	2.0630	3904.5	194.2	1.00	75.40	0.1255	237.5213	0.031669	3.3068	0.006258	90.48287	11.31036	
02-28-2015 04	162	91	2187.1	0.5210	2.0742	4536.5	224.4	1.00	87.14	0.1255	274.4811	0.036597	3.3068	0.007232	104.5625	13.07032	
02-28-2015 05	163	87	2259.5	0.5050	2.0781	4695.5	231.8	1.00	91.72	0.1255	288.9136	0.038521	3.3068	0.007613	110.0606	13.75757	
02-28-2015 06	164	87	2289.1	0.4950	2.0780	4745.3	234.9	1.00	91.20	0.1255	287.2821	0.038304	3.3068	0.00757	109.439	13.67988	
02-28-2015 07	170	87	2352.8	0.4960	2.0589	4844.1	241.4	1.00	93.74	0.1255	295.2764	0.03937	3.3068	0.00778	112.4845	14.06056	
02-28-2015 08	170	87	2359.3	0.5030	2.0475	4831.5	242.1	1.00	94.00	0.1255	296.0922	0.039478	3.3068	0.007802	112.7952	14.0994	
02-28-2015 09	170	88	2353.8	0.5010	2.0537	4834.0	241.5	1.00	93.78	0.1255	295.4019	0.039386	3.3068	0.007783	112.5323	14.06653	
02-28-2015 10	170	87	2345.5	0.5050	2.0479	4803.4	240.6	1.00	93.45	0.1255	295.427	0.039399	3.3068	0.007784	112.5418	14.06773	
02-28-2015 11	170	87	2354.0	0.5000	2.0248	4766.4	241.5	1.00	93.78	0.1255	280.8816	0.03745	3.3068	0.007401	107.0008	13.3751	
02-28-2015 12	158	87	2238.1	0.5150	2.0161	4512.3	229.6	1.00	89.17	0.1255	272.5609	0.036341	3.3068	0.007182	103.8311	12.97888	
02-28-2015 13	151	87	2171.8	0.5130	2.0116	4368.8	224.1	1.00	86.53	0.1255	274.0544	0.035019	3.3068	0.007221	104.4	13.05	
02-28-2015 14	152	87	2183.7	0.4990	2.0036	4375.3	224.1	1.00	87.00	0.1255	262.6464	0.035019	3.3068	0.00692	100.0542	12.50677	
02-28-2015 15	139	87	2092.8	0.5190	1.9990	4183.6	214.7	1.00	89.88	0.1255	283.128	0.03775	3.3068	0.00746	107.8566	13.48207	
02-28-2015 16	160	87	2256.0	0.5000	2.0093	4533.0	231.5	1.00	88.98	0.1255	276.7777	0.036903	3.3068	0.007293	105.4375	13.17968	
02-28-2015 17	153	87	2205.4	0.5010	1.9901	4388.9	226.3	1.00	87.86	0.1255	276.7777	0.036903	3.3068	0.007293	105.4375	13.17968	



**Dominion Energy – Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

System Data	Date/Time	YTOT Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx Lb/MMBtu		Common Stack SO2 Lb/MMBtu		Common Stack CO2 (Tons/Hr)		Unit Operation (minutes)		Coal ton/hr		PM-10 (lb/MMBtu)		PM-10 (lb/MMBtu)		Lead (lb/hr)		Mercury (lb/TBtu)		Mercury (lb/hr)		HCl (lb/hr)		HF (lb/hr)		
		YTOT Gross Load MW Value	YTOT Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack NOx Lb/MMBtu	Common Stack SO2 Lb/MMBtu	Common Stack SO2 Lb/MMBtu	Common Stack CO2 (Tons/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Unit Operation (minutes)	Coal ton/hr	Coal ton/hr	PM-10 (lb/MMBtu)	PM-10 (lb/MMBtu)	Lead (lb/hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/TBtu)	Mercury (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HCl (lb/hr)	HF (lb/hr)	HF (lb/hr)			
02-28-2015 18	02-28-2015 18	163	87	2272.3	0.5030	1.143.0	1.9929	4528.4	233.1	1.00	90.53	0.1255	285.1737	0.038023	3.3068	0.007514	108.6359	13.57948	3.3068	0.007514	108.6359	13.57948	3.3068	0.007514	108.6359	13.57948	3.3068	0.007514	108.6359	13.57948
	02-28-2015 19	164	87	2286.9	0.5060	1.157.2	1.9883	4547.1	234.6	1.00	91.11	0.1255	287.006	0.038267	3.3068	0.007562	109.3339	13.66673	3.3068	0.007562	109.3339	13.66673	3.3068	0.007562	109.3339	13.66673	3.3068	0.007562	109.3339	13.66673
	02-28-2015 20	164	86	2313.3	0.5080	1.175.2	1.9786	4577.1	237.3	1.00	92.16	0.1255	290.3192	0.038709	3.3068	0.00765	110.596	13.8245	3.3068	0.00765	110.596	13.8245	3.3068	0.00765	110.596	13.8245	3.3068	0.00765	110.596	13.8245
	02-28-2015 21	164	87	2321.3	0.5070	1.176.9	1.9763	4587.6	238.2	1.00	92.48	0.1255	291.3232	0.038842	3.3068	0.007676	110.9785	13.87231	3.3068	0.007676	110.9785	13.87231	3.3068	0.007676	110.9785	13.87231	3.3068	0.007676	110.9785	13.87231
	02-28-2015 22	164	86	2312.3	0.5100	1.179.3	1.9741	4564.6	237.2	1.00	92.12	0.1255	290.1937	0.038692	3.3068	0.007646	110.5482	13.81853	3.3068	0.007646	110.5482	13.81853	3.3068	0.007646	110.5482	13.81853	3.3068	0.007646	110.5482	13.81853
	02-28-2015 23	164	86	2303.3	0.5090	1.172.4	1.9744	4547.6	236.3	1.00	91.76	0.1255	289.0642	0.038541	3.3068	0.007616	110.1179	13.76474	3.3068	0.007616	110.1179	13.76474	3.3068	0.007616	110.1179	13.76474	3.3068	0.007616	110.1179	13.76474
	03-01-2015 00	140	87	2105.0	0.5210	1.096.7	1.9639	4134.0	216.0	1.00	83.86	0.1255	264.1775	0.035223	3.3068	0.006961	100.6375	12.57968	3.3068	0.006961	100.6375	12.57968	3.3068	0.006961	100.6375	12.57968	3.3068	0.006961	100.6375	12.57968
	03-01-2015 01	158	86	2270.4	0.5070	1.151.1	1.9631	4470.7	232.9	1.00	90.45	0.1255	284.9352	0.037991	3.3068	0.007508	108.545	13.56813	3.3068	0.007508	108.545	13.56813	3.3068	0.007508	108.545	13.56813	3.3068	0.007508	108.545	13.56813
	03-01-2015 02	157	87	2237.9	0.5140	1.150.3	1.9721	4413.4	229.6	1.00	89.16	0.1255	280.8565	0.037447	3.3068	0.0074	106.9912	13.3739	3.3068	0.0074	106.9912	13.3739	3.3068	0.0074	106.9912	13.3739	3.3068	0.0074	106.9912	13.3739
	03-01-2015 03	159	87	2272.5	0.5180	1.177.2	1.9619	4458.4	233.2	1.00	90.54	0.1255	285.1988	0.038026	3.3068	0.007515	108.6454	13.58068	3.3068	0.007515	108.6454	13.58068	3.3068	0.007515	108.6454	13.58068	3.3068	0.007515	108.6454	13.58068
	03-01-2015 04	144	87	2076.1	0.5350	1.110.7	1.9642	4077.8	213.0	1.00	82.71	0.1255	260.5506	0.03474	3.3068	0.006865	99.25578	12.40697	3.3068	0.006865	99.25578	12.40697	3.3068	0.006865	99.25578	12.40697	3.3068	0.006865	99.25578	12.40697
	03-01-2015 05	159	86	2254.3	0.4920	1.109.1	1.9844	4473.4	231.3	1.00	89.81	0.1255	282.9147	0.037721	3.3068	0.007454	107.7753	13.47191	3.3068	0.007454	107.7753	13.47191	3.3068	0.007454	107.7753	13.47191	3.3068	0.007454	107.7753	13.47191
	03-01-2015 06	161	87	2289.8	0.4870	1.115.1	1.9643	4497.9	234.9	1.00	91.23	0.1255	287.3699	0.038315	3.3068	0.007572	109.4725	13.68406	3.3068	0.007572	109.4725	13.68406	3.3068	0.007572	109.4725	13.68406	3.3068	0.007572	109.4725	13.68406
	03-01-2015 07	160	87	2278.8	0.4970	1.132.6	1.9552	4455.5	233.8	1.00	90.79	0.1255	285.9894	0.038131	3.3068	0.007535	108.9466	13.61833	3.3068	0.007535	108.9466	13.61833	3.3068	0.007535	108.9466	13.61833	3.3068	0.007535	108.9466	13.61833
	03-01-2015 08	164	87	2290.9	0.5030	1.152.3	1.9568	4482.9	235.0	1.00	91.27	0.1255	287.508	0.038334	3.3068	0.007575	109.5251	13.69064	3.3068	0.007575	109.5251	13.69064	3.3068	0.007575	109.5251	13.69064	3.3068	0.007575	109.5251	13.69064
	03-01-2015 09	164	87	2285.2	0.5020	1.147.2	1.9607	4480.6	234.5	1.00	91.04	0.1255	286.7926	0.038238	3.3068	0.007557	109.2526	13.65657	3.3068	0.007557	109.2526	13.65657	3.3068	0.007557	109.2526	13.65657	3.3068	0.007557	109.2526	13.65657
	03-01-2015 10	160	88	2279.4	0.4910	1.119.2	1.9458	4435.2	233.9	1.00	90.81	0.1255	286.0647	0.038141	3.3068	0.007537	108.9753	13.62191	3.3068	0.007537	108.9753	13.62191	3.3068	0.007537	108.9753	13.62191	3.3068	0.007537	108.9753	13.62191
	03-01-2015 11	164	87	2299.8	0.4950	1.133.8	1.9557	4500.0	236.0	1.00	91.63	0.1255	288.6249	0.038483	3.3068	0.007605	109.9506	13.74382	3.3068	0.007605	109.9506	13.74382	3.3068	0.007605	109.9506	13.74382	3.3068	0.007605	109.9506	13.74382
	03-01-2015 12	164	87	2299.1	0.4950	1.138.1	1.9650	4517.7	235.9	1.00	91.60	0.1255	288.5371	0.038471	3.3068	0.007603	109.9171	13.73964	3.3068	0.007603	109.9171	13.73964	3.3068	0.007603	109.9171	13.73964	3.3068	0.007603	109.9171	13.73964
	03-01-2015 13	164	87	2300.5	0.4970	1.143.3	1.9676	4526.4	236.0	1.00	91.65	0.1255	288.7128	0.038494	3.3068	0.007607	109.9841	13.74801	3.3068	0.007607	109.9841	13.74801	3.3068	0.007607	109.9841	13.74801	3.3068	0.007607	109.9841	13.74801
	03-01-2015 14	164	87	2303.1	0.4970	1.144.6	1.9667	4529.4	236.3	1.00	91.76	0.1255	289.0391	0.038538	3.3068	0.007616	110.1084	13.76355	3.3068	0.007616	110.1084	13.76355	3.3068	0.007616	110.1084	13.76355	3.3068	0.007616	110.1084	13.76355
	03-01-2015 15	164	87	2315.1	0.4980	1.152.9	1.9499	4514.3	237.5	1.00	92.24	0.1255	290.5451	0.038739	3.3068	0.007656	110.6821	13.83526	3.3068	0.007656	110.6821	13.83526	3.3068	0.007656	110.6821	13.83526	3.3068	0.007656	110.6821	13.83526
	03-01-2015 16	164	87	2311.4	0.5010	1.158.0	1.9531	4514.5	237.2	1.00	92.09	0.1255	290.0807	0.038677	3.3068	0.007643	110.5052	13.81315	3.3068	0.007643	110.5052	13.81315	3.3068	0.007643	110.5052	13.81315	3.3068	0.007643	110.5052	13.81315
	03-01-2015 17	164	87	2307.5	0.5060	1.165.2	1.9467	4492.1	236.8	1.00	91.93	0.1255	289.5787	0.038612	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924
	03-01-2015 18	164	87	2307.4	0.5050	1.165.2	1.9319	4457.7	236.7	1.00	91.93	0.1255	289.5913	0.038612	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924	3.3068	0.00763	110.3139	13.78924
	03-01-2015 19	164	87	2309.4	0.5210	1.203.2	1.9321	4462.1	236.9	1.00	92.01	0.1255	289.8297	0.038643	3.3068	0.007637	110.4096	13.8012	3.3068	0.007637	110.4096	13.8012	3.3068	0.007637	110.4096	13.8012	3.3068	0.007637	110.4096	13.8012
	03-01-2015 20	163	87	2273.5	0.5080	1.154.9	1.9329	4394.5	233.3	1.00	90.58	0.1255	285.3243	0.038043	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665
	03-01-2015 21	164	87	2294.6	0.4920	1.128.9	1.9393	4450.0	235.4	1.00	91.42	0.1255	287.9723	0.038396	3.3068	0.00756	109.3004	13.66255	3.3068	0.00756	109.3004	13.66255	3.3068	0.00756	109.3004	13.66255	3.3068	0.00756	109.3004	13.66255
	03-01-2015 22	162	87	2286.2	0.4980	1.136.5	1.9311	4414.9	234.6	1.00	91.08	0.1255	286.9181	0.038255	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665	3.3068	0.007518	108.6932	13.58665
	03-01-2015 23	127	87	1990.6	0.5360	1.067.0	1.9333	3848.5	204.2	1.00	79.31	0.1255	249.8208	0.033309	3.3068	0.00582	95.16813	11.89602	3.3068	0.00582	95.16813	11.89602	3.3068	0.00582	95.16813	11.89602	3.3068	0.00582	95.16813	11.89602
	03-02-2015 00	98	87	1729.1	0.5350	925.1	1.9303	3337.7	177.4	1.00	68.89	0.1255	217.0021	0.028933	3.3068	0.005718	82.66614	10.33327	3.3068	0.005718	82.66614	10.33327	3.3068	0.005718	82.66614	10.33327	3.3068	0.005718	82.66614	10.33327
	03-02-2015 01	98	87	1737.2	0.5210	905.1	1.9449	3378.7	178.2	1.00	69.21	0.1255	218.0186	0.029069	3.3068	0.005745	83.05339	10.38167	3.3068	0.005745	83.05339	10.38167	3.3068	0.005745	83.05339	10.38167	3.3068	0.005745	83.05339	10.38167
03-02-2015 02	98	87	1732.0	0.5160	893.7	1.9573	3390.0	177.7	1.00	69.00	0.1255	217.366	0.028982	3.3068	0.005727	82.80478	10.3506	3.3068	0.005727	82.80478	10.3506	3.3068	0.005727	82.80478	10.3506	3.3068	0.005727	82.80478	10.3506	
03-02-2015 03	98	87	1734.2	0.5170</																										



Odominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 25, 2017

Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack		Common Stack		Common Stack		Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)		
			Heat Input (mmBtu)	NOx (lb/mmBtu)	SO2 (lb/hr)	CO2 (Tons/Hr)											
03-02-2015 17	98	87	1729.0	0.5480	947.5	1.9472	3366.7	177.4	1.00	68.88	0.1255	216.9895	0.028931	3.3068	0.005717	82.66135	10.33267
03-02-2015 18	98	87	1705.5	0.5510	939.7	1.9606	3343.8	175.0	1.00	67.95	0.1255	214.0403	0.028538	3.3068	0.00564	81.53785	10.19223
03-02-2015 19	98	88	1726.1	0.5400	932.1	1.9560	3376.2	177.1	1.00	68.77	0.1255	216.6256	0.028883	3.3068	0.005708	82.52271	10.31534
03-02-2015 20	104	87	1762.9	0.5290	932.6	1.9711	3474.8	180.9	1.00	70.24	0.1255	221.244	0.029499	3.3068	0.00583	84.28207	10.53526
03-02-2015 21	122	87	1921.1	0.5290	1016.3	1.9862	3815.6	197.1	1.00	76.54	0.1255	241.0981	0.032146	3.3068	0.006353	91.84542	11.48068
03-02-2015 22	125	87	1960.1	0.5480	1074.1	1.9757	3872.5	201.1	1.00	78.09	0.1255	245.9926	0.032798	3.3068	0.006482	93.70996	11.71375
03-02-2015 23	123	87	1942.3	0.5560	1079.9	1.9929	3870.9	199.3	1.00	77.38	0.1255	243.7587	0.032501	3.3068	0.006423	92.85896	11.60737
03-03-2015 00	109	87	1818.8	0.5580	1014.9	1.9904	3620.2	186.6	1.00	72.46	0.1255	228.2594	0.030434	3.3068	0.006014	86.95458	10.86932
03-03-2015 01	98	88	1727.1	0.5440	939.5	1.9847	3427.8	177.2	1.00	68.81	0.1255	216.7511	0.0289	3.3068	0.005711	82.57052	10.32131
03-03-2015 02	98	87	1727.0	0.5100	880.8	1.9399	3436.6	177.2	1.00	58.80	0.1255	216.7385	0.028898	3.3068	0.00574	82.56574	10.32072
03-03-2015 03	95	60	1460.3	0.5970	871.8	1.8183	2655.2	149.8	1.00	58.18	0.1255	183.2677	0.024435	3.3068	0.004829	69.81514	8.726892
03-03-2015 04	55	0	613.1	0.4450	272.8	1.6178	991.9	62.9	1.00	24.43	0.1255	76.94405	0.010259	3.3068	0.002027	29.31155	3.663944
03-03-2015 05	1	1	22.1	0.9931	22.1	1.6179	22.1	0.07	0.07	1.65	0.1255	5.198963	0.000693	3.3068	0.000137	1.980526	0.247566
03-03-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-03-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-04-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Date	Date/Time	VOC Gross Load MW		VOC Gross Load MW Value		Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/MMBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HF (lb/hr)
		Value	Value	Value	Value												
2023-05-04 08:00:00	03-04-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 17	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 18	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 19	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 20	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 21	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 22	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-04-2015 23	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 00	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 01	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 02	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 03	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 04	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 05	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
03-05-2015 06	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	
2023-05-05 08:00:00	03-05-2015 07	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 08	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 09	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 10	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 11	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 12	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 13	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 14	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 15	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0
	03-05-2015 17	0	0	0	0.0	0.0000											



Corminion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substituted Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/mmBtu)	HCl (lb/hr)	HF (lb/hr)
	03-06-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-06-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-07-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-08-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substituted Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lbTBU)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	03-08-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-08-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-09-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-10-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Submitted Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tenshr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	03-10-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-10-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-11-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

**January 1, 2015 through November 26, 2017**

Stack Emissions Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/hr)	Common Stack SO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal (ton/hr)	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/TBtu)	HCl (lb/hr)	HF (lb/hr)
	03-12-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-12-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-13-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	03-14-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

DATE	DATE/HR	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/hr)	Common Stack CO <sub>2</sub> (Tons/hr)	Unit Operation (minutes)	Cell Efficiency	PVA-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/TBtu)	HCl (lb/hr)	HF (lb/hr)
	03-14-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-14-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-15-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
 Hourly Mass Emissions

January 1, 2015 through November 26, 2017

SVS-Filtered Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO <sub>2</sub> (lb/mmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/Hr)	Mercury (lb/Hr)	Mercury (lb/MMBtu)	HCl (lb/Hr)	HF (lb/Hr)
	03-16-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-16-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-17-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-18-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Start Date	End Date	Date/Time	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack NOx Lb/hr	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/ton)	HCl (lb/hr)	HF (lb/hr)
03-18-2015	09		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	10		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	11		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	12		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	13		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	14		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	15		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	16		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	17		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	18		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	19		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	20		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	21		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	22		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-18-2015	23		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	00		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	01		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	02		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	03		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	04		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	05		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	06		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	07		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	08		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	09		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	10		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	11		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	12		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	13		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	14		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	15		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	16		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	17		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	18		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	19		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	20		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	21		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	22		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-19-2015	23		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	00		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	01		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	02		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	03		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	04		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	05		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	06		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015	07		0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)		Common Stack NOx (lb/mmBtu)		Common Stack SO2 (lb/mmBtu)		Common Stack CO2 (Tons/Hr)		Unit Operation (minutes)	Coal tonnage	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/Btu)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
			Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)													
03-20-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-20-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-21-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
03-22-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lbmmBtu)	Common Stack NOx (lbmmBtu)	Common Stack SO <sub>2</sub> (lbmmBtu)	Common Stack SO <sub>2</sub> (lbmmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (inlets)	Cool tons/hr	PM-10 (lbmmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/TEU)	HCl (lb/hr)	HF (lb/hr)
	03-22-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-22-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-23-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03-24-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



## Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

## Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Submittal Date BAG	Date/Hour	Y101 Gross	Y102 Gross	Common Stack	Common Stack	Common Stack	Common Stack	Common Stack	Common Stack	Unit Operation	Coal tons/hr	PM-10	PM-10	Lead	Mercury	Mercury	HCl	HF
		Load MW Value	Load MW Value	Heat Input (mmBtu)	NOx Lb/mmBtu	SO2 Lb/mmBtu	SO2 (Lb/Hr)	CO2 (Tons/Hr)	(minutes)	(lb/mmBtu)	(Lb/Hr)	(lb/TSu)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
03-24-2015 06 03-24-2015 07 03-24-2015 08 03-24-2015 09 03-24-2015 10 03-24-2015 11 03-24-2015 12 03-24-2015 13 03-24-2015 14 03-24-2015 15 03-24-2015 16 03-24-2015 17 03-24-2015 18 03-24-2015 19 03-24-2015 20 03-24-2015 21 03-24-2015 22 03-24-2015 23 03-25-2015 00 03-25-2015 01 03-25-2015 02 03-25-2015 03 03-25-2015 04 03-25-2015 05 03-25-2015 06 03-25-2015 07 03-25-2015 08 03-25-2015 09 03-25-2015 10 03-25-2015 11 03-25-2015 12 03-25-2015 13 03-25-2015 14 03-25-2015 15 03-25-2015 16 03-25-2015 17 03-25-2015 18 03-25-2015 19 03-25-2015 20 03-25-2015 21 03-25-2015 22 03-25-2015 23 03-26-2015 01 03-26-2015 02 03-26-2015 03 03-26-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0	0.0000	0	0	
0	0	0.0	0.0000	0.0	0.0	0.0	0											



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substituted Data	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack NOx (lb/Hr)	Common Stack SO2 (lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tens/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/Btu)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
	03-26-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-26-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-27-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-28-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-28-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-28-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0
	03-28-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Station Date	Date/Time	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/Hr	Common Stack SO2 Lb/mmBtu	Common Stack SO2 (lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/Hr)	Mercury (lb/TBtu)	HCl (lb/Hr)	HF (lb/Hr)
	03-28-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-28-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-29-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substituted Date	Date/Time	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/MMBtu)	HCl (lb/hr)	HF (lb/hr)
	03-30-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-01-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-01-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Start/End Date	Date/Hour	Y101 Gross Load MW Value		Y102 Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx (lb/mmBtu)		Common Stack SO2 (lb/mmBtu)		Common Stack CO2 (Tons/hr)		Unit Operation (minutes)		Coal tons/hr		PM-10 (lb/mmBtu)		PM-10 (lb/hr)		Lead (lb/hr)		Mercury (lb/mmBtu)		Mercury (lb/hr)		HCl (lb/hr)		HF (lb/hr)	
04-01-2015 02:00 to 04-03-2015 00:00	04-01-2015 02		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 03		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 04		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 05		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 06		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 07		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 08		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 09		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 10		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 11		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 12		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 13		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 14		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 15		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 16		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 17		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 18		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 19		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 20		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 21		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 22		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-01-2015 23		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 00		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 01		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 02		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 03		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 04		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 05		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 06		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 07		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 08		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
	04-02-2015 09		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0
04-02-2015 10		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 11		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 12		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 13		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 14		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 15		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 16		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 17		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 18		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 19		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 20		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 21		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 22		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-02-2015 23		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	
04-03-2015 00		0	0	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1255	0	0	0.0000	0										



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Stack Emissions Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu/hr)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/mmBtu	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (mbars)	Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/Btu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-03-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-03-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0
	04-04-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.0	0.1255	0	0	0.0000	0	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

**January 1, 2015 through November 25, 2017**

31551 (UTC-5) Date	Date/Time	Y102 Gross Load MW Value	Y101 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/mmBtu	Common Stack SO <sub>2</sub> (lb/hr)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-05-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-05-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-06-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx LbmmBtu	Common Stack SO <sub>2</sub> LbmmBtu	Common Stack SO <sub>2</sub> (lbmmBtu)	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lbmmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lbTBU)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-06-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-07-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-08-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substituted Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/hr)	Units Operational (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lbTSP)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-08-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-08-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-09-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0
	04-10-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0	0.0000	0	0	0



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Data	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal to ash	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-10-2015 21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-10-2015 22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-10-2015 23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-11-2015 23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-12-2015 19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Unit	Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack NOx (Lb/Hr)	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/ftBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-12-2015	20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-12-2015	21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-12-2015	22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-12-2015	23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-13-2015	23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-14-2015	18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Substation Name	Date/Time	YT01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO <sub>2</sub> Lb/mmBtu	Common Stack CO <sub>2</sub> (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	04-14-2015 19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-14-2015 20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-14-2015 21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-14-2015 22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-14-2015 23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-15-2015 23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-16-2015 17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Submission Date	Date/Hour	YT01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack SO2 Lb/MMBtu	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-16-2015	18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-17-2015	10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	17	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	18	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	19	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	20	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	21	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	22	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	23	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	00	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	01	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
04-18-2015	02	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	03	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	06	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	07	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	08	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	09	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	10	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	11	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	12	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	13	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	14	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	15	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	16	0	0	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

SUBMITTER Data	Date/Hour	YTO1 Gross	YTO2 Gross	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/mmBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal transfer	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
		Load MW Value	Load MW Value																
	04-18-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-18-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-19-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	04-20-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

SDS3151526 Data	Date/Hour	YT01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/MMBtu)	Common Stack SO2 (lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal Transfer	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Mercury (lb/TBtu)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
	04-20-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-21-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**  
**Hourly Mass Emissions**  
**January 1, 2015 through November 26, 2017**

Start/End Date	Date/Hour	Y101 Gross	Y102 Gross	Common Stack		Common Stack		Common Stack		Unit Operation	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
		Load MW	Value	Heat Input (mmBtu)	NOx Lb/mmBtu	NOx Lb/mmBtu	SO2 Lb/Hr	CO2 (Tons/Hr)									
Stack Emissions Data	04-22-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-22-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-23-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-23-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-23-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
04-24-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Data	Date/Hour	YT01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack		Common Stack SO2 (Lb/Hr)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal transfer	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
				Heat Input (mmBtu)	NOx Lb/mmBtu														04-24-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-24-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-25-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0		04-26-2015 12
	04-24-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-24-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-24-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-24-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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	04-24-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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	04-25-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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	04-25-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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	04-25-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-25-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	04-26-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Substation Data	Date/Time	YT01 Gross Load MW Value		YT02 Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx Lb/mmBtu		Common Stack SO2 (Lb/mmBtu)		Common Stack CO2 (Tons/Hr)		Unit Operation (minutes)		Coal transfer		PM-10 (lb/mmBtu)		PM-10 (Lb/Hr)		Lead (lb/hr)		Mercury (lb/TBtu)		Mercury (lb/hr)		HCl (lb/hr)		HF (lb/hr)	
	04-26-2015 13	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 14	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 15	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 16	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 17	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 18	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 19	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 20	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 21	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 22	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-26-2015 23	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 00	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 01	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 02	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 03	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 04	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 05	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 06	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 07	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 08	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 09	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 10	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 11	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 12	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 13	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 14	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 15	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 16	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 17	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 18	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 19	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 20	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 21	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 22	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-27-2015 23	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 00	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 01	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 02	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 03	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 04	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 05	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 06	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 07	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 08	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 09	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
	04-28-2015 10	0	0	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0	0.0																		



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Start Date	End Date	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tensile	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-28-2015	12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-28-2015	23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-29-2015	23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
04-30-2015	10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**  
**Hourly Mass Emissions**  
**January 1, 2015 through November 26, 2017**

Date/Time	Y101 Gross Load MW Value		Y102 Gross Load MW Value		Common Stack Heat Input (mmBtu)		Common Stack NOx Lb/mmBtu		Common Stack NOx Lb/hr		Common Stack SO2 (lb/mmBtu)		Common Stack SO2 (lb/hr)		Common Stack CO2 (Tons/Hr)		Unit Operation (minutes)		Coal lbs/hr		PM-10 (lb/mmBtu)		PM-10 (Lb/Hr)		Lead (lb/hr)		Mercury (lb/TBtu)		Mercury (lb/hr)		HCl (lb/hr)		HF (lb/hr)		
04-30-2015 11	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 12	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 13	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 14	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 15	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 16	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 17	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 18	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 19	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 20	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 21	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 22	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
04-30-2015 23	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 00	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 01	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 02	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 03	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 04	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 05	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 06	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 07	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 08	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 09	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 10	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 11	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 12	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 13	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 14	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 15	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 16	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 17	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 18	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 19	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 20	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 21	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 22	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-01-2015 23	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-02-2015 00	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-02-2015 01	0		0		0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.1255	0	0.0000	0	0	0.0000	0	0	0.0000	0	0	0	0	0
05-02-2015 02	0		0		0.0	0.0000	0.0	0.0000																											



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
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Supersat (hr/d)	Date/Hour	YT01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal Transfer	PM-10 (lb/mmBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	05-02-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-02-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 20	0	0	3.2	0.0089	0.0	0.3	0.48	0.13	0.1255	0.397584	5.3E-05	3.3068	1.05E-05	0.151458	0.018932
	05-03-2015 21	0	0	2.7	0.0089	0.0	0.3	0.08	0.11	0.1255	0.337344	4.5E-05	3.3068	8.89E-06	0.12851	0.016064
	05-03-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-03-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-04-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substituted Data	Date/Time	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack SO2 Lb/MMBtu	Common Stack NOx Lb/Hr	Common Stack SO2 Lb/Hr	Common Stack CO2 Tons/Hr	Unit Operation (minutes)	Cell Temperature	PM-10 (lb/MMBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
TRUE	05-04-2015 09	0	0	0.9927	0.0000	0.0000	0.0000	0.0000	0.0000	0.08	0.30	0.1255	0.95882	0.000128	3.3068	2.53E-05	0.365259	0.045657
TRUE	05-04-2015 10	0	0	0.9927	0.0000	0.0000	0.0000	0.0000	0.0000	1.00	3.80	0.1255	11.98525	0.001598	3.3068	0.000316	4.565737	0.570717
TRUE	05-04-2015 11	0	0	0.9928	0.0000	0.0000	0.0000	0.0000	0.0000	0.77	1.28	0.1255	4.02968	0.000537	3.3068	0.000106	1.535092	0.191886
TRUE	05-04-2015 12	0	0	0.9925	0.0000	0.0000	0.0000	0.0000	0.0000	1.00	1.60	0.1255	5.0451	0.000673	3.3068	0.000133	1.921912	0.240239
TRUE	05-04-2015 13	0	0	0.9926	0.0000	0.0000	0.0000	0.0000	0.0000	1.00	1.62	0.1255	5.10785	0.000681	3.3068	0.000135	1.945817	0.243227
TRUE	05-04-2015 14	0	0	0.9926	0.0000	0.0000	0.0000	0.0000	0.0000	1.00	1.61	0.1255	5.0702	0.000676	3.3068	0.000134	1.931474	0.241434
TRUE	05-04-2015 15	0	0	0.9926	0.0000	0.0000	0.0000	0.0000	0.0000	1.00	1.61	0.1255	5.0702	0.000676	3.3068	0.000134	1.931474	0.241434
TRUE	05-04-2015 16	0	0	0.9924	0.0000	0.0000	0.0000	0.0000	0.0000	0.12	0.19	0.1255	0.59487	7.93E-05	3.3068	1.57E-05	0.226614	0.028327
TRUE	05-04-2015 17	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 18	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 19	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 20	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 21	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 22	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-04-2015 23	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 01	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 02	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 03	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 04	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 05	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 06	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 07	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 08	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 09	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 11	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 12	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 13	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 14	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 15	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 16	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 17	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 18	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 19	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 20	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 21	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 22	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-05-2015 23	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 01	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 02	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 03	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 04	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 05	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 06	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0
TRUE	05-06-2015 07	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Substation Name	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/mmBtu	Common Stack SO2 Lb/mmBtu	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	05-06-2015 08	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 09	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 10	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 11	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 12	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 13	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 14	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 15	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 16	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 17	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 18	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 19	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 20	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 21	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 22	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-06-2015 23	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 00	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 01	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 02	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 03	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 04	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 05	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 06	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 07	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 08	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 09	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 10	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 11	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 12	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 13	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 14	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 15	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 16	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 17	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 18	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 19	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 20	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 21	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 22	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-07-2015 23	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 00	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 01	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 02	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 03	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 04	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 05	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 06	0	0	0.0	0.0000	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Domination Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Stacked Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/hr)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/hr)	Common Stack SO2 (lb/hr)	Common Stack CO2 (Tons/hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	05-08-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-08-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-09-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack  
Hourly Mass Emissions  
January 1, 2015 through November 26, 2017

Slack/Freeze Date	Date/Hour	Y701 Gross Load MW Value	Y702 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack SO2 (lb/MMBtu)	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal cons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
	05-10-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-10-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-11-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0



**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack**

**Hourly Mass Emissions**

January 1, 2015 through November 26, 2017

Substation Data	Date/Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack NOx (lb/Hr)	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/Hr)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal use (lb/Hr)	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/TBtu)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
	05-12-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-12-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-13-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-14-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-14-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-14-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0
	05-14-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0



Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Start Date	End Date	Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lb/MMBtu	Common Stack NOx Lb/MMBtu	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/MMBtu)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
05-14-2015	04	05-14-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	05	05-14-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	06	05-14-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	07	05-14-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	08	05-14-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	09	05-14-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	10	05-14-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	11	05-14-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	12	05-14-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	13	05-14-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	14	05-14-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	15	05-14-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	16	05-14-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	17	05-14-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	18	05-14-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	19	05-14-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	20	05-14-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	21	05-14-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	22	05-14-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-14-2015	23	05-14-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	00	05-15-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	01	05-15-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	02	05-15-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	03	05-15-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	04	05-15-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	05	05-15-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	06	05-15-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	07	05-15-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	08	05-15-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	09	05-15-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	10	05-15-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	11	05-15-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	12	05-15-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	13	05-15-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	14	05-15-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	15	05-15-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	16	05-15-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	17	05-15-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	18	05-15-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	19	05-15-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	20	05-15-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	21	05-15-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	22	05-15-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-15-2015	23	05-15-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-16-2015	00	05-16-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-16-2015	01	05-16-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0
05-16-2015	02	05-16-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.1255	0	0	0.0000	0	0	0